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INTERNATIONAL

EMBROILING TRANSNISTRIA IN THE RUSSIA-UKRAINE WAR

The story so far: As the Russia-Ukraine War competes over two months, Transnistria, the tiny breakaway region of Moldova, risks being dragged into the conflict.

Where is Transnistria?

The de facto state lies between Moldova to its west and Ukraine towards its east. Often described as a “remnant of the Soviet Union”, Transnistria declared independence like Moldova did soon after the break-up of the Soviet Union. When Moldovan troops attempted to take over the territory in 1990-1992, Transnistria was able to resist them because of Russian soldiers based in Transnistria. Since then, it has remained free of Moldovan control. However, most countries continue to see Transnistria as part of Moldova.

What is the political make-up of Transnistria?

Transnistria is not recognised as independent even by Russia and its economy is dependent on Russia for subsidies and free gas. Most Transnistrians have dual citizenship of Russia and Transnistria or triple citizenship of Moldova, Transnistria, and Russia. Unlike the rest of Moldova, which speaks Romanian, the majority of people in Transnistria speak Russian and use the Cyrillic script like Russians. It has its own government (which is pro-Russian), Parliament, armed force, constitution, flag, anthem, etc. In a referendum held in 2006, over 97% of Transnistrians voted for future integration with Russia and after the annexation of Crimea, the government asked if it could be absorbed into Russia. Russia, however, was not keen on this. But Transnistria is host to over 1,500 Russian “peacekeepers” and is home to a large Russian ammunition depot at Cobasna.

Why is it in the news now?

Transnistria risks being drawn into the Russia-Ukraine war because of reports of a series of explosions in its territory. First, there was an attack by men using rocket propelled grenades on its security headquarters, followed by an attack on a radio centre which broadcasts Russian news. There were also reports that a village which is host to one of the largest ammunition depots in Europe was hit by shots. No one has taken responsibility for these attacks in which there were no deaths. However, Ukrainian officials termed them as a deliberate provocation by Russia to intervene in Transnistria and Moldova while Russian officials blamed Ukraine for the attacks. After the explosions, Transnistria’s President Vadim Krasnoselsky called for a 15-day red alert, with anti-terrorist measures put in place. Men of fighting age have been banned from leaving its territory. This is being read as a sign that Transnistria will be drawn into the Russia-Ukraine conflict.

There are fears in the West and in Ukraine that Transnistria could be used as a staging ground in the conflict between Russia and Ukraine and that Russia might use Transnistria to cut off the southwestern corner of Ukraine, leading to direct Russian intervention inside Moldova.

These fears were compounded by a Russian General, Rustam Minnekayev, asserting that Russian speaking people in Transnistria and Moldova are being oppressed, reminding observers ominously of Russia justifying its invasion of Ukraine by claiming to be acting on behalf of Russian speakers in the Donbass region oppressed by Ukraine. Added to this was his statement that Moscow intends to take over southern Ukraine, including the port city of Odesa, which would



allow it access to Transnistria. This would create a land-bridge for Russia from southern Ukraine all the way to Transnistria.

Clearly, Transnistria's strategic location is important to the next phase of Russia's war on Ukraine. The region is not too distant from the Black Sea port of Odesa and also shares a relatively long border with Ukraine. If Transnistria comes under Russian control, it will enable Russia to create a Russian-controlled corridor along Ukraine's Black Sea coast. If Russia succeeds in linking Odesa with Transnistria, the rest of Ukraine would become completely landlocked and the country would naturally be weakened. Moldova, on its part, fears that Russia will use Transnistria to launch an attack on it as Russia has long wanted Moldova to be in its sphere of influence.

What lies ahead?

There is little Moldova, Europe's poorest country, can do in this situation. It is constitutionally neutral and has a very small military force. It is not a member of NATO. So, there is little chance of NATO coming to its rescue, particularly since NATO cannot give membership to countries which have border disputes with other countries.

Similarly, it is not a member of the European Union though it is pro-Europe. In March this year, Moldova had signed an official request to join the EU. However, this will take time and the country right now cannot comply with the EU's conditions for membership.

Meanwhile, all eyes will be on what Russia intends to do next in Transnistria as part of its war with Ukraine, which has already dragged on longer than expected.

TURKEY'S FOREIGN POLICY RESET

The war in Ukraine has encouraged Turkey's president, Recep Tayyip Erdogan, to quickly reset relations with his West Asian neighbours so that he is better placed to cope with the serious geopolitical challenges emerging from the conflict.

This process of course-correction began when Israeli president Isaac Herzog visited Turkey on March 9 this year, ending a decade of strained ties, largely on account of Turkey's support for Palestinian interests. The bonhomie created by the visit has continued, with regular telephonic conversations between the leaders of the two countries and indications that Mr. Erdogan might visit Israel shortly.

The more dramatic Turkish outreach has been to Saudi Arabia, with Mr. Erdogan's visit on April 28-29. The visit was preceded by the special prosecutor in Turkey transferring the criminal case against 26 Saudi nationals for the murder of Jamal Khashoggi to the kingdom itself, thus closing this sensitive and divisive matter. Saudi Arabia reciprocated by removing the ban on the import of Turkish goods, which had reduced Turkish exports from \$3.2 billion in 2019 to \$200 million last year.

Before his departure, Mr. Erdogan spoke of a "joint will to start a new period of cooperation", and specifically mentioned energy, health, food security, finance and defence industry as areas to be pursued. During the visit, he had cordial meetings with King Salman and Crown Prince Mohammed bin Salman, and referred to the kingdom as Turkey's "friend and brother".



Besides boosting bilateral economic ties, regional commentators have referred to prospects for cooperation in promoting regional stability, particularly in matters relating to Syria, Iraq, Egypt and the east Mediterranean.

Turkey's strategic autonomy

A NATO member since 1952, Turkey, under President Erdogan aspires, as Graham Fuller has said, "to a broad regional leadership, un beholden to any single country or power". Convinced that the U.S. had some hand in the attempted coup against him in July 2016, Mr. Erdogan moved closer to Russia and, contrary to NATO rules, even purchased the Russian S-400 missile defence system. Its expulsion from the NATO project to develop the F-35 fighter aircraft has encouraged even greater affinity with Russia.

Russia today provides 52% of Turkey's gas imports, 65% of its grain requirements, and sends seven million tourists annually who make a significant contribution to the Turkish GDP. Russia is also constructing a nuclear power station that in 2030 will meet 30% of Turkey's energy needs. Bilateral trade last year was \$30 billion.

The two countries are also bonded by the 930-km TurkStream gas pipeline that bypasses Ukraine and links the two countries through the Black Sea.

Turkey has also built close ties with Ukraine. The latter provides nearly 15% of Turkey's grain imports and also sends annually a million tourists to the country. In early February 2022, the two countries entered into a free trade agreement and a defence cooperation agreement. The latter provides for the supply and joint production of Turkey's lethal Bayraktar TB2 unmanned drones which have boosted Ukraine's fighting capabilities in the ongoing conflict with Russia.

On March 29, Turkey hosted the second round of Russia-Ukraine peace talks in Istanbul, amidst some hints of progress at that time. Peace talks have halted since then; recent reports indicate that the western allies are not keen on a quick end to the conflict. At the same time, western nations are pursuing efforts to pull Turkey more deeply into their alliance.

So far, Turkey has remained committed to strategic autonomy. It has described the Ukraine conflict as a "war" and, in terms of the Montreux Convention of 1936, the Bosphorus and Dardanelles Straits have been closed for naval shipping. Mr. Erdogan has described the war as "unacceptable", while Turkey's official media has criticised the Russian attack. Turkey also co-sponsored the UN General Assembly resolution that "deplored" the Russian invasion. However, Turkey has refused to join its western allies in imposing economic sanctions on Russia, nor has it closed its airspace to Russian traffic. It has also not sent any fresh arms shipments to Ukraine.

Regional geopolitics

The sinking of the Russian Black Sea fleet flagship, Moskva, on 14 April, possibly through missile attacks from Ukraine, has highlighted the strategic significance of the Black Sea. Through its Black Sea fleet, Russia is anxious to project power in the Mediterranean — hence the expansion and modernisation of its bases in the Crimea, Tartous and Hmeimim in Syria, and the consolidation of its military presence in Libya.

These Russian concerns and ambitions impinge on Turkey's interests. Hence, not surprisingly, they have been on opposite sides over the Nagorno-Karabakh dispute, when in 2020 Turkey backed Azerbaijan against Armenia, a Russian ally. Turkey has also opposed Russia's occupation



of Crimea in 2014 on the ground that Russian control over Crimea and the upgradation of Russian naval capabilities will tilt the maritime balance of power in favour of the latter.

In response, Turkey has enhanced its naval prowess in these waters — in April this year, the “Blue Homeland” naval exercises took place in the Black, Aegean and Mediterranean Seas, involving 122 ships, 41 aircraft and 12,000 personnel. During these war games, Mr. Erdogan pledged to make Turkey “the most powerful naval force in the region”.

Russia’s plan in the Ukraine war to take full control of the Donbas region in east Ukraine and the Ukrainian coast on the Black Sea, and then take over the Transnistria region on the Ukraine-Moldova border — taken together, this would significantly expand Russian influence and revive the traditional Russian-Ottoman rivalry in the region, when the Ottomans had been backed by western allies, Britain and France.

Turkey’s NATO allies hope that, faced with the challenge of an expansionist Russia, Turkey would return as a compliant member of the trans-Atlantic alliance.

But this seems unlikely. Turkey remains uncomfortable with periodic western criticisms of Mr. Erdogan’s authoritarian ways. Turkish public opinion is also largely anti-West. In a survey in January 2022, 39.4% of those polled favoured closer ties with China and Russia, while 37.5% favoured closer relations with the U.S. and the EU; a year earlier, the two figures were, respectively, 27.6% and 40.9%.

Again, in geopolitical terms, Turkey sees the need to work closely with Russia to manage its crucial interests in Central and West Asia, the Caucasus and Afghanistan.

As the war continues and there are increasing domestic and regional pressures on Mr. Erdogan, the Turkish leader will need to depend on his substantial capacity as a crisis manager to take his country through these stormy times.

DreamIAS



NATION

IN THE TIME OF WAR

Prime Minister Narendra Modi's three-nation visit to Europe comes at a time when the continent is facing its biggest security crisis since the end of the Cold War. In Germany, Mr. Modi and Chancellor Olaf Scholz reiterated the partnership between the two countries. Berlin has also announced €10 billion for bilateral cooperation. In Copenhagen, Mr. Modi attended the India-Nordic summit with leaders of Denmark, Norway, Sweden, Finland, and Iceland. In the last leg, the Prime Minister will hold talks in Paris with French President Emmanuel Macron, who was re-elected recently. While bilateral issues are at the centre of these meetings, the elephant in the room is the Russian invasion of Ukraine. Mr. Modi's trip comes a few days after the President of the European Commission, Ursula von Der Leyen, visited India. New Delhi's neutral position on the war has triggered both criticism and engagement from the West. India has seen several high-profile visits from the West, with some top officials pressing New Delhi to cut back on trade with Russia, a traditional strategic partner. Among the Nordic five, Sweden and Finland are now considering dropping their decades-long neutrality and seeking NATO membership.

In Germany, however, both sides showed pragmatism over the Ukraine question. Germany, like India, has deep economic ties with Russia — if for India it is about defence supplies, for Germany, it is for almost 40% of its gas import requirements. While the Russian aggression has prompted Germany to raise its defence spending and join the western sanctions regime, it has been reluctant in sending weapons to Kyiv, compared to other NATO members in Eastern Europe. While Mr. Scholz urged Russian President Vladimir Putin to “stop this senseless murder and withdraw your troops”, Mr. Modi's response was more measured. He said that no party could emerge victorious and that dialogue was the only way out. India and Germany also unveiled the contours of the next level of their partnership. Germany has said India is its “central partner” in Asia and that close cooperation would continue to expand. Europe is expected to take a more securitised approach to foreign policy from now, given the direction of the Ukraine conflict. In the post-Cold War world when Europe witnessed relative stability, India managed to build strong ties with both the West and Russia. But that era of multi-directional partnerships is facing its strongest test now with the West seeking to “weaken” Russia and Moscow warning of a new world war. The challenge before New Delhi is to build a stronger strategic future with Europe without immediately disrupting its complex but vital partnership with an increasingly isolated, angry Russia.

INDIA'S POSITION ON THE WORLD PRESS FREEDOM INDEX

The story so far: India's ranking in the 2022 World Press Freedom Index has fallen to 150 out of 180 countries, according to the latest report released by the global media watchdog, Reporters Without Borders (RSF). In last year's report, India was ranked 142. The top three positions for countries with the highest press freedom were taken by the Nordic trio of Norway (a score of 92.65), Denmark (90.27) and Sweden (88.84).

What is RSF and what's the objective of this Index?

RSF is an international NGO whose self-proclaimed aim is to defend and promote media freedom. Headquartered in Paris, it has consultative status with the United Nations. The objective of the World Press Freedom Index, which it releases every year, “is to compare the level of press freedom enjoyed by journalists and media in 180 countries and territories” in the previous calendar year.



The RSF defines press freedom as “the ability of journalists as individuals and collectives to select, produce, and disseminate news in the public interest independent of political, economic, legal, and social interference and in the absence of threats to their physical and mental safety.”

What is the methodology used by RSF to assess and rank countries?

Countries are ranked after being assigned a score ranging from 0 to 100, with 100 representing the highest possible level of press freedom and 0 the worst. The scoring has two components: a quantitative one, that tallies abuses against journalists and media outlets, and a qualitative analysis based on the responses of press freedom specialists (journalists, researchers, human rights defenders) to an RSF questionnaire.

Countries are evaluated on five contextual indicators: political context, legal framework, economic context, socio-cultural context, and safety. For instance, the political context indicator considers, among other things, “the degree of support for the media in their role of holding politicians and government to account in the public interest”. A ‘subsidiary score’ ranging from 0 to 100 is calculated for each indicator, and all the subsidiary scores together contribute to the ‘global score’. India, which had a global score of 53.44 in the 2021 Index, could muster only 41 this time.

What are the findings with regard to world press freedom?

In terms of global trends, the report flags a “two-fold increase in polarisation amplified by information chaos — that is, media polarisation fuelling divisions within countries, as well as polarisation between countries at the international level.” It notes that “within democratic societies, divisions are growing” due to the spread of “opinion media” modelled on Fox News, and the rise of “disinformation circuits” amplified by how social media functions.

While singling out Moldova (40th) and Bulgaria (91st) for drastic improvements in press freedom “thanks to a government change”, it has classified the situation in 28 countries including Russia (155) and Belarus (153), as “very bad”. The world’s 10 worst countries for press freedom include Myanmar (176th), China (175), Turkmenistan (177th), Iran (178th), Eritrea (179th) and North Korea (180th).

What does the Index say about India?

The report states that in India, “the violence against journalists, the politically partisan media and the concentration of media ownership all demonstrate that press freedom is in crisis”. Describing India as “one of the world’s most dangerous countries for the media”, the report notes that “journalists are exposed to all kinds of physical violence including police violence, ambushes by political activists, and deadly reprisals by criminal groups or corrupt local officials.” It highlights that “supporters of Hindutva, the ideology that spawned the Hindu far-right, wage all-out online attacks on any views that conflict with their thinking.”

What are the report’s observations on India under various indicators?

Under ‘political context’, it states: “Originally a product of the anti-colonial movement, the Indian press used to be seen as fairly progressive but things changed radically in the mid-2010s, when Narendra Modi became prime minister and engineered a spectacular rapprochement between his party, the BJP, and the big families dominating the media.” It highlights that “very early on, Modi took a critical stance vis-à-vis journalists, seeing them as ‘intermediaries’ polluting the direct relationship between himself and his supporters.”



With regard to 'legal framework', the report notes that "Indian law is protective in theory but charges of defamation, sedition, contempt of court and endangering national security are increasingly used against journalists critical of the government". Under 'economic context', the report, describing Indian media as a "colossus with a feet of clay", points out that "media outlets largely depend on advertising contracts with local and regional governments" and "at the national level, the central government has seen that it can exploit this to impose its own narrative, and is now spending more than ₹130 billion (5 billion euros) a year on ads in the print and online media alone. "Finally, on the socio-cultural indicators of press freedom, the report, noting that "the enormous diversity of Indian society is barely reflected in the mainstream media," states that "for the most part, only Hindu men from upper castes hold senior positions in journalism or are media executives — a bias that is reflected in media content."

THE COURT'S BURDEN

It is unfortunate that the proposal by the Chief Justice of India (CJI) for a national judicial infrastructure corporation with corresponding bodies at the State level, did not find favour with many Chief Ministers at the recent joint conference of Chief Justices and Chief Ministers. A special purpose vehicle, vested with statutory powers to plan and implement infrastructure projects for the judiciary, would have been immensely helpful in augmenting facilities for the judiciary, given the inadequacies in court complexes across the country. However, it is a matter of relief that there was agreement on the idea of State-level bodies for the same purpose, with representation to the Chief Ministers so that they are fully involved in the implementation. The CJI, N.V. Ramana, who had mooted the proposal some months ago, sought to dispel the impression that a national body would usurp the powers of the executive, and underscored that it could have adequate representation of the Union/States. He had flagged the gulf between the available infrastructure and the justice needs of the people. If his proposal had been accepted, the available funding as a centrally sponsored scheme, with the Centre and States sharing the burden on a 60:40 ratio, could have been gone to the national authority, which would allocate the funds through high courts based on need. It is likely that Chief Ministers did not favour the idea as they wanted a greater say in the matter.

Given the experience of allocated funds for judicial infrastructure going unspent in many States, it remains to be seen how far the proposed State-level bodies would be successful in identifying needs and speeding up implementation. It will naturally require greater coordination between States and the respective High Courts. Union Law Minister Kiren Rijju has promised assistance from the Centre to the States for creating the required infrastructure, especially for the lower judiciary. While it is a welcome sign that the focus is on infrastructure, unmitigated pendency, chronic shortage of judges and the burgeoning docket size remain major challenges. CJI Ramana flagged some aspects of the Government's contribution to the burden of the judiciary — the failure or unwillingness to implement court orders, leaving crucial questions to be decided by the courts and the absence of forethought and broad-based consultation before passing legislation. While this may be unpalatable to the executive, it is quite true that litigation spawned by government action or inaction constitutes a huge part of the courts' case burden. The conversation between the judiciary and the executive at the level of Chief Justices and Chief Ministers may help bring about an atmosphere of cooperation so that judicial appointments, infrastructure upgradation and downsizing pendency are seen as common concerns.



WEIGHING THE EVIDENCE

The Supreme Court in a decisive order has laid out a fine balance between individual liberty and the state's right to impose restrictions in the interests of public safety. An individual had the right to refuse vaccination and though the Government could "impose limitations" on rights of individuals, it had to be "reasonable and proportionate" to the extent that it achieved the objective, in this case, containing the spread of the coronavirus. The current evidence, the Court reasoned, suggested that unvaccinated individuals were no more likely to spread the virus than those vaccinated and, therefore, people could not be denied access to public places, services and resources for being unvaccinated. However, this was no blanket order, and if infection rates increased and vaccines demonstrably reduced susceptibility to infections, the Government was within its rights to impose restrictions. The order underscores scientific reasoning and that the pandemic also continues to pose tough, science conundrums that generate new knowledge and challenge received wisdom. Last year, this time, India was besieged by the second pandemic and also woefully short of vaccines. The central policy then was to rationalise access to vaccines because demand outstripped supply. While availability was a key factor, it was also because scientific evidence showed vaccination stemmed progression to severe disease and the priority was to save lives.

Close to 75% of Indians have had at least one vaccine shot and a good proportion have hybrid immunity. Newer, highly transmissible variants and the West's experience, of infections being rife despite triple-shots, have all depressed demand for boosters in India. While last year, before the second wave, vaccine hesitancy was ascribed to the low uptake, it is quite likely now that people are exercising their option of waiting for more kinds of the vaccine. The current attitude is foregrounded in the ground reality that daily infections are low despite a complete opening up of normal life. In the first year of the pandemic, when vaccines were in a nascent stage and the virus was raging, the scientific wisdom was that lock-downs and vaccination of two thirds of the population would end the pandemic — an idea that has not come to pass. Thus, it could very well be that newer kinds of vaccines (proven to curb transmission), may change the understanding of the best possible means to contain the blight. The suppression of individual liberty for the greater good is perhaps among the oldest and toughest questions that democracies grapple with; and beyond the orders, it is judicial reasoning that influences policy and future discourse when the facts on the ground change. The authorities must keep scientific evidence at the forefront when they take decisions that affect individual choice.

SC IS LOUD AND CLEAR ON NOISE POLLUTION

Recent days have seen tensions rise over the use of loudspeakers in temples and mosques.

However, the court, while interpreting the law on the use of loudspeakers in 2005, had made it clear that it was not concerned with "any religion or religious practices".

Legal principle

The court had made it clear that its judgments regulating the use of loudspeakers and timings were based on the legal principle that "freedom from noise pollution is a part of the right to life under Article 21 of the Constitution".

"Noise interferes with the fundamental right of citizens to live in peace and to protect themselves against forced audience... We are not concerned with any religion or religious practices; we are



concerned only with the fundamental right of the citizens and the people to protect themselves against noise pollution and forced audiences,” the court had made its intentions clear in its 2005 judgments. The top court had made it clear that nobody, whatever be the religion or purpose, “can claim a right to create noise even in his own premises which would travel beyond his precincts and cause nuisance to neighbours or others”.

“No one can claim a fundamental right to create noise by amplifying the sound of his speech with the help of loudspeakers,” the court explained.

‘Not a must’

On the use of loudspeakers in religious practices, the top court, in one of the judgments, reproduced parts of a newspaper column which said the objective of any religion was not to force anyone to listen to its expressions of faith. The court had said the logic that loudspeakers were not a must to spread religious devotion appealed to it.

PRESIDENT HAS NO ROLE TO PLAY IN PERARIVALAN’S PLEA, SAYS SC

The Supreme Court on Wednesday disagreed with the Central government’s suggestion that the court should wait till the President took a call on Rajiv Gandhi assassination case convict A.G. Perarivalan’s mercy plea referred to him by the Tamil Nadu Governor for a decision.

A Bench of Justices L. Nageswara Rao and B.R. Gavai said the Centre had missed the obvious question posed by the court by a mile. The pertinent question was whether the Governor had, in the first place, the authority to refer the mercy plea to the President.

Under Article 161 of the Constitution, the Governor was bound by the aid and advice given by the Tamil Nadu Council of Ministers in September 2018 to the Governor to release Perarivalan, who has already served over 30 years of his life sentence. The Governor prima facie had no authority to transfer the mercy plea to the President. There was no role for the President here under the Constitution, the court told Additional Solicitor-General K.M. Nataraj, for the Centre

“We cannot shut our eyes to something that is happening against the Constitution. We have to follow our Bible — the Constitution of India,” Justice Rao addressed the Centre.

Justice Gavai said no authority, however high, could put a spoke in the working of the Constitution.

Mr. Nataraj urged the court, “The file has been referred by the Governor to the President. If the President refers it (mercy plea) back to the Governor, there is no need to discuss this issue at all... The President himself will decide if the Governor could have referred the file to him or not. Leave it to the President to take a call on whether to pardon or reject or send the file back to the Governor...”.

Justice Rao shot back, “We thought it was our duty to interpret the law and not the President’s... The question whether the Governor was right in referring the State Cabinet’s wish to the President, instead of exercising his duty under Article 161, has to be decided by the court”.

Justice Gavai said there had been ample time for the Centre to return the mercy plea file to the Governor. Mr. Nataraj said, “No, it was only recently the file came to us”.



Justice Gavai told Mr. Nataraj, “The Governor decided to send the file to the President on January 27, 2021... It is May 5, 2022 today... And you are saying it came to you only ‘recently’? This is a matter concerning personal liberty”.

Mr. Nataraj persisted, “The man is out on bail”.

Justice Rao reminded the Centre, “But he has a Damocles’ sword hanging over him”. The court said Perarivalan was not interested in these “finer questions of law”.

“He wants to be released. He has suffered prison for over 30 years. We have passed judgments in the past in favour of life convicts who have served over 20 years of their sentence... There cannot be any discrimination in this case whatever be the magnitude of the crime... Basically, he wants to be free. He has acquired several educational qualifications in prison. He has shown good conduct. He has also acquired several diseases due to the long years in prison... We are not asking you for his release... If you are not willing to consider these aspects, we will consider ordering his release,” Justice Rao told the Centre.

The court also asked why the Centre had to speak for the Governor.

“Why are you interested? The State has asked for his release and the Governor is bound by the State Council’s advice under Article 161. The President has no role under Article 161. In case the Governor has a different opinion, he has to send it back to the State,” Justice Rao told the Centre.

The Council of Ministers of Tamil Nadu had recommended Perarivalan’s release way back in September 9, 2018.

Senior advocate Rakesh Dwivedi, for Tamil Nadu, argued that the prospect of the court waiting for the President’s decision on the mercy plea, as put forward by the Centre, was “completely absurd”. Mr. Dwivedi, along with Tamil Nadu Additional Advocate General Amit Anand Tiwari and advocate Joseph Aristotle, said federalism would go for a toss if that was allowed by the court.

Distinct powers

Mr. Dwivedi stated that the President and Governor exercised two distinct powers of mercy under Articles 72 and 161, respectively. The former exercised his power under the aid and advice of the Council of Ministers at the Centre while the latter depended on the State Council of Ministers.

Senior advocate Gopal Sankaranarayanan and advocate Prabu Ramasubramanian, for Perarivalan, said the Governor had in the past, before referring the mercy plea to the President, never denied his responsibility to take a decision in the case.

“Instead, everytime he [Governor] came up with an excuse not to decide,” Mr. Sankaranarayanan submitted.

SC TO STUDY IF LARGER BENCH SHOULD HEAR SEDITION PLEAS

A 60-year-old Constitution Bench judgment validating sedition law led a three-judge Bench headed by Chief Justice of India N.V. Ramana on Thursday to pause to examine if petitions challenging the colonial provision should be referred to a larger Bench of five or seven judges of the court.



The 1962 judgment in *Kedar Nath v State of Bihar* delivered by a Bench of five judges of the Supreme Court had upheld Section 124A (sedition) of the Indian Penal Code while restricting its applicability to “activities involving incitement to violence or intention or tendency to create public disorder or cause disturbance of public peace”.

A judicial law laid down by the Supreme Court cannot be countered by a numerically inferior Bench.

The Chief Justice Bench, including Justices Surya Kant and Hima Kohli, scheduled a hearing on the question of reference at 2 p.m. on May 10. The court warned lawyers against seeking adjournment on that day.

“First we have to determine whether we should sit in a composition of three judges or five or seven before going into the question of legality of Section 124A... Assuming the CJI decides to constitute a larger Bench, then that Bench can straightaway take up the question of Section 124A. Such a larger Bench, if formed, can directly hear on merits whether sedition should continue or be struck down in the light of subsequent developments in law post the *Kedar Nath* judgment and global opinions on sedition,” Justice Kant addressed the lawyers.

Attorney-General K.K. Venugopal, who has been asked by the court to assist in the capacity of his constitutional office, however, said there was no need to refer the petitions to a larger Bench. “The *Kedar Nath* judgment is the last word on the issue of sedition law. It has balanced well the right of security of state and the right of free speech,” he gave his prima facie opinion. He said Section 124A had to be retained in the penal code.

“However, the misuse of sedition law should be controlled. This court can lay down certain guidelines in the implementation of the law... Recently, sedition has been invoked in Maharashtra even for chanting the Hanuman Chalisa...” Mr. Venugopal submitted.

Senior advocate Kapil Sibal and advocate Vipin Nair also argued that there was no need to refer the case to a larger Bench because of the *Kedar Nath* judgment.

He submitted that the *Kedar Nath* judgment was limited to an examination of how sedition could be invoked by the government to silence free speech under Article 19(1)(a) of the Constitution. It had not examined how sedition could be misused by the government to cripple right to life and dignity and right to equal treatment under Articles 21 and 14, respectively. Mr. Sibal said the three-judge Bench could go ahead and decide their petitions without touching on the *Kedar Nath* verdict.

But Justice Kant invoked judicial propriety. “Subsequent changes in law does not give a three-judge Bench the right to ignore an earlier five-judge Bench decision on the same issue,” Justice Kant said.

Solicitor General Tushar Mehta agreed with the court that the point of reference to a larger Bench needed to be heard and decided first before going into the merits of the case.

NEET EXEMPTION BILL SENT TO HOME MINISTRY'

Chief Minister M.K. Stalin on Wednesday informed the Tamil Nadu Legislative Assembly that Governor R.N. Ravi has forwarded the NEET exemption Bill to the Union Home Ministry to be sent to the President of India for his assent.



Terming the development 'historic', Mr. Stalin called upon all parties in the Assembly to come together and take all efforts to ensure that the President gives his assent to the Bill that was passed for the second time earlier this year after the Governor returned the previous Bill to the Assembly.

Mr. Stalin informed the Assembly that the Governor's secretary had spoken to him over the phone on Wednesday afternoon and informed him of the decision.

The Chief Minister recalled that all the parties [except the BJP] had taken part in the discussion on the Bill and the Assembly passed the Bill for a second time by sending it to the Governor.

Meeting with PM

Following this, Mr. Stalin said, he had met the Governor and had insisted that he send the Bill without delay to the Home Ministry.

He had also met Prime Minister Narendra Modi and Home Minister Amit Shah on the issue.

Further, MPs of all political parties in the State had given a representation to the President's office seeking his assent to the Bill, Mr. Stalin said.

BILL ASSENT, A DELAY AND THE GOVERNOR'S OPTIONS

The State of Tamil Nadu has been witnessing a confrontation between the elected government and the State Governor on the question of giving assent to the National Eligibility cum Entrance Test (NEET) Bill (linked to an all India pre-medical entrance test) passed by the State Assembly. Giving assent to a Bill passed by the legislature is a normal constitutional act performed by the Governor. But of late, even such normal acts have become a source of confrontation between State governments and the Governors. The conduct of Governors in certain States follows a definite pattern which causes a great deal of disquiet to elected governments as well as to those who have faith in the constitutional order.

On the advice of Ministers

The position of a Governor in the constitutional setup in India needs to be clearly understood in order to grasp the significance of the actions as well as responses of Governors in the politico-administrative contexts emerging from time to time in States. The Governor is an appointee of the President, which means the Union government. Although Article 154(1) of the Constitution vests in the Governor the executive power of the State, he is required to exercise that power in accordance with the Constitution. In other words, the Governor can act only on the aid and advice of the Council of Ministers. Though there is not much deviation from the language used in the Government of India Act of 1935 in the context of the powers of the British-era Governors, it is a settled constitutional position that the Governor is only a constitutional head and the executive power of the State is exercised by the Council of Ministers. In *Shamsher Singh vs State of Punjab* (1974), the Supreme Court had clearly affirmed this position in the following words: "We declare the law of this branch of our Constitution to be that the President and Governor, custodians of all executives and other powers under various Articles, shall, by virtue of these provisions, exercise their formal constitutional powers only upon and in accordance with the advice of their Ministers save in a few well known exceptional situations".

Dr. Ambedkar explained the position of the Governor in the Constituent Assembly as follows: "The Governor under the Constitution has no functions which he can discharge by himself: no functions



at all.” The Sarkaria Commission restates this position in its report, “it is a well-recognized principle that so long as the council of ministers enjoys [the] confidence of the Assembly its advice in these matters, unless patently unconstitutional, must be deemed as binding on the governor”. In 2016, a five-judge constitution Bench of the Supreme Court (the Nabam Rebia case) reaffirmed the above position on the governors’ powers in our constitutional setup.

The pathways available

It may be stated here that this analysis of the Governor’s powers is meant to enable readers to have a perspective on the issue of the Governor of Tamil Nadu not deciding on the request for assent to the NEET Bill passed by the Assembly even after the passage of more than two months. What exactly are the options before the Governor in the matter of giving assent to a Bill passed by the Assembly?

Article 200 of the Constitution provides for four alternative courses of action for a Governor when a Bill after being passed by the legislature is presented to him for his assent. Assent of the Governor or the President is necessary for a Bill to become law. The Governor can give his assent straightaway or withhold his assent. He may also reserve it for the consideration of the President, in which case the assent is given or withheld by the President. The fourth option is to return the Bill to the legislature with the request that it may reconsider the Bill or any particular provision of the Bill. The Governor can also suggest any new amendment to the Bill. When such a message is received from the Governor, the legislature is required to reconsider his recommendations quickly. However, if the legislature again passes the Bill without accepting any of the amendments suggested by the Governor he is constitutionally bound to give assent to the Bill.

The Governor of Tamil Nadu returned the NEET Bill to the Assembly for reconsideration of the Bill. Accordingly, the Assembly held a special session in the first week of February and passed it again and presented it to the Governor for his assent. He has not assented to the Bill so far.

A wrong view

In the meantime, some sources in the Raj Bhavan have reportedly said that the Constitution has not fixed any time line within which to act. This, then, is the crux of the issue. The point that is made by these sources is that since the Constitution has not fixed any time frame, the Governor can postpone a decision indefinitely. Needless to say, it is a very wrong view.

While it is true that Article 200 does not lay down any time frame for the Governor to take action under this Article, it is imperative on the part of the Governor to exercise one of the options contained therein. A constitutional authority cannot circumvent a provision of the Constitution by taking advantage of an omission. The option mentioned in Article 200 is meant to be exercised by the Governor without delay. The context of Article 200 needs to be understood to be able to take the correct decision. After a Bill is passed by the legislature, it is sent to the Governor immediately. Although Article 200 does not say by what time the Governor should take the next step, it clearly and unambiguously states the options for him to exercise. It is obvious that if the Governor does not exercise any of those options he will not be acting in conformity with the Constitution because non-action is not an option contained in Article 200.

But sitting on the Bill after the Assembly has passed it again and sent it to him is impermissible under the Constitution. Article 200 (proviso) clearly says that when the Assembly reconsiders the Bill on the recommendations of the Governor and presents it to him, he shall not withhold assent. The Constitution makers could never have intended that the Governor could sit on a Bill passed



by the legislature for as long as he wants and take advantage of the absence of any specific time frame.

In fact, the words used in Article 200 "... it shall be presented to the governor and the governor shall declare..." indicates that the Constitution requires the Governor to act without delay upon the presentation of the Bill. The reason is obvious. The legislature passes a Bill because there is an urgency about it. But if the Governor does not act, the will of the legislature is frustrated. It is not the constitutional policy to frustrate the legislative will as expressed through the Bill. Therefore, in view of the mandatory provision in the proviso to Article 200, it is clear that the Constitution does not permit the Governor to sit on a Bill after the Assembly re-submits it to him after reconsideration.

An undemocratic option

Giving assent to a Bill passed by the legislature is a part of the legislative process and not of the executive power. But the Constitution has by providing for definite options made it obligatory for the Governor to exercise any of those options without delay. Withholding of assent, though an option, is not normally exercised by Governors because it will be an extremely unpopular step. Besides, withholding assent to a Bill by the Governor, an appointee of the President, neutralises the entire legislative exercise by an elected legislature enjoying the support of the people. In the opinion of this writer, this option is undemocratic and essentially against federalism. In the United Kingdom it is unconstitutional for the monarch to refuse to assent to a Bill passed by Parliament. Similarly, in Australia, refusal of assent to a Bill by the crown is considered repugnant to the federal system.

In our constitutional system, the Governor or the President is not personally responsible for their acts. It is the elected government that is responsible. Under Article 361, the President or a Governor is not answerable to any court for anything done in the exercise and performance of their powers and duties. But when a Governor does not take any decision on a Bill which is put up for his assent, he is not acting in exercise and performance of the duties cast upon him.

QUASI-FEDERALISM

The contemporary discourse on federalism in India is moving on a discursive note across multiple dimensions, be it economic, political and cultural, to the extent that one is compelled to regard India to be at an inflection point vis-a-vis Centre-State relations owing to increasing asymmetry. Professor Shawn Rosenberg has argued that without an active and committed citizenry a democracy can devour itself and, in this context, it is worth engaging with India's federal ethos and the associated asymmetries.

Federal, quasi federal or hybrid?

India consciously adopted a version of federalism that made the Union government and State governments interdependent on each other (latter more vis-a-vis the former) thereby violating the primal characteristic of a federal constitution i.e., autonomous spheres of authority for Union and State governments. Similar other constitutional features include the size and composition of the Rajya Sabha akin to that of the Lok Sabha thereby favouring larger States; Article 3 of the Indian Constitution which allows the Union to alter the boundaries of a State without the latter's consent, emergency powers, and concurrent list subjects of the Seventh Schedule wherein the Union possesses more authority than the State barring a few exceptions. India's centralised



federal structure was not marked by the process of 'coming together' but was an outcome of 'holding together' and 'putting together'.

Ambedkar called India's federation a Union as it was indestructible which is why the Constitution does not contain words related to federalism. He also said that India's Constitution holds requisite flexibility to be federal and unitary on a need basis. While the Supreme Court of India held that federalism was a part of the basic structure of the Indian Constitution in the *S.R. Bommai vs Union of India* case (1994), the Court also held that the Indian variant of federalism upholds a strong centre in the *Kuldip Nayar vs Union of India* case (2006).

Professor Louise Tillin argues that a conscious effort on the part of the framers of the Constitution to ensure flexibility and accommodate diversity renders India's federalism an original form which is neither conventional nor reductive.

The reasons for a centralised federal structure

It is worth noting that the Indian National Congress (INC) vehemently opposed the discretionary powers of the provincial governors in the run-up to the 1937 elections and advocated in favour of autonomy. However, following the governance experience, in 1939, Nehru argued otherwise. Therefore, contextualising the choice of the framers of the Constitution provides a much needed insight on the past, thereby helping one understand the present and imagine the future of India's federal ethos. Tillin presents at least four reasons that informed India's choice of a centralised federal structure.

First was the partition of India and the concomitant concerns. Anticipating the Muslim League's participation in the Constituent Assembly debates following the Cabinet Mission plan in 1946, the Objectives Resolution introduced by Jawaharlal Nehru in the Assembly were inclined towards a decentralised federal structure wherein States would wield residuary powers. Further, in his presidential address at the 44th session of the INC, J.B. Kripalani too spoke in favour of maximum autonomy to the States and regarded centralisation to be at odds with liberty. However, after the Partition a revised stand was unanimously taken by the Union Powers Committee of the Constituent Assembly, in favour of a strong Union with residuary powers and weaker States, to safeguard the integrity of the nation.

The second reason pivoted around the reconstitution of social relations in a highly hierarchical and discriminatory society towards forging a national civic identity as argued by Professor Katharine Adeney instead of immediate caste and linguistic identities. Dr. Madhav Khosla shows that Nehru and Ambedkar believed that a centralised federal structure would unsettle prevalent trends of social dominance, help fight poverty better and therefore yield liberating outcomes. The third reason concerns the objective of building a welfare state. Drawing from existing literature, Tillin shows that in a decentralised federal setup, redistributive policies could be structurally thwarted by organised (small and dominant) groups. Instead, a centralised federal set-up can prevent such issues and further a universal rights-based system.

The final reason involved the alleviation of inter-regional economic inequality. The cotton mill industry in Bombay, and the jute mill industry in the Bengal region were subject to a 'race to the bottom' or rampant cost cutting practices. The Bengal region saw workers' rights and safety nets being thwarted by Anglo-Scottish mill owners. The Bombay region had an empowered working class — thanks to the trade unionists — thereby affecting the business interests of mill owners owing to race to the bottom practices in the adjacent cotton belt region mills.



Provincial interventions seemed to exacerbate inequalities. India's membership in the International Labour Organization, the Nehru Report (1928), and the Bombay Plan (1944) pushed for a centralised system to foster socio-economic rights and safeguards for the working and entrepreneurial classes.

The present and the future

While the aforementioned reasons make a case for a centralised federal set-up, the structure's effectiveness is solely dependent on the intent and objectives a government aims to achieve. For instance, Tillin observed that linguistic reorganisation would not have been possible if India followed a rigid or conventional federal system. In other words, the current form of federalism in the Indian context is largely a function of the intent of the government of the day and the objectives it seeks to achieve. The majoritarian tendencies prevalent today are subverting the unique and indigenised set-up into an asymmetrical one. Inter alia, delayed disbursement of resources and tax proceeds, bias towards electorally unfavourable States, evasion of accountability, blurring spheres of authority, weakening institutions, proliferation of fissiparous political ideologies all signal towards the diminishing of India's plurality or regionalisation of the nation — a process that is highly antithetical to the forging of a supra-local and secular national identity that preserves and promotes pluralism.

While it would be safe to argue that our federal set-up is a conscious choice, its furthering or undoing, will depend on the collective will of the citizenry and the representatives they vote to power.

ENDING AFSPA

It augurs well for the future that Prime Minister Narendra Modi has given the first authentic indication that the operation of the Armed Forces (Special Powers) Act (AFSPA) may come to an end in the whole of the north-eastern region, if ongoing efforts to normalise the situation bear fruit. Mr. Modi's remark that a good deal of work is being done in that direction, not only in Assam but also Nagaland and Manipur, may be rooted in his keenness to demonstrate the level of progress achieved in the region under his regime; but it will bring immense relief to the citizens, nevertheless. Areas notified as 'disturbed areas' under AFSPA have been progressively reduced in the last few years, mainly due to the improvement in the security situation. About a month ago, the Union Home Ministry reduced such notified areas considerably in Assam, Nagaland and Manipur. There was a substantial reduction in Assam, where AFSPA was removed entirely in 23 districts and partially in one. In Nagaland, after the removal of the law from 15 police stations in seven districts, it remains in areas under 57 police stations, spread across 13 districts. Areas under 82 police stations are still notified under the Act in Manipur, even though 15 police station areas were excluded from the notification from April 1. Mr. Modi, who spoke at a 'peace, unity and development rally' in Diphu in Assam last week, cited "better administration" and the "return of peace" as the reasons for the removal of AFSPA in these areas in a region that has seen insurgencies for decades.

AFSPA was revoked in Tripura in 2015 and in Meghalaya in 2018. It is not unforeseeable that other States will also be excluded from its purview at some point of time. It is convenient to link the exclusion of an area from AFSPA's purview with reduction in violence by armed groups, improvement in the security situation and an increase in development activity, but what is important is the recognition that the law created an atmosphere of impunity and led to the commission of excesses and atrocities. It was hardly four months ago that 15 civilians were killed



in Mon district in Nagaland in a botched military operation. Therefore, alongside the gradual reduction in the areas under the Act, there should be serious efforts to procure justice for victims of past excesses too. On the political side, it is indeed true that much headway has been made in moving towards a political solution to some of the multifarious disputes in the region, in the form of peace accords, ceasefire and creation of sub-regional administrative arrangements. The removal of AFSPA from the entire region will be an inevitable step in the process. But irrespective of the security situation, AFSPA should not have allowed such impunity to the armed forces.

THE STATUS OF THE NAGA PEACE TALKS

The story so far: The annual report of the Ministry of Home Affairs (MHA) released recently said that the Isak-Muivah faction of the National Socialist Council of Nagaland (NSCN-IM) was involved in 44% of insurgency-related incidents in Nagaland in 2020.

The Union government had, in 2015, signed a framework agreement with the NSCN-IM to find a solution to the Naga political issue. The negotiations are yet to be concluded.

Why did the Naga insurgency begin?

The term Naga was created by the British for administrative convenience to refer to a group of tribes with similar origins but distinct cultures, dialects, and customs. The Naga tribes are accumulated in Nagaland, Arunachal Pradesh, Manipur, and Myanmar.

Residing in the Naga hills of Assam during the advent of the British and the annexation of Assam in 1820, the Nagas did not consider themselves a part of British India. The British adopted a way of governance over the Nagas that involved keeping in place their traditional ways of life, customs, and laws while putting British administrators at the top.

At the time of the withdrawal of the British, insecurity grew among the Naga tribes about the future of their cultural autonomy after India's independence, which was accompanied by the fear of the entry of "plains people" or "outsiders" into their territory. These gave rise to the formation of the Naga Hills District Tribal Council in 1945, which was renamed the Naga National Council (NNC) in 1946. Amid uncertainties over the post-independence future of the Nagas, a section of the NNC, led by Naga leader A.Z. Phizo declared the independence of the Nagas on August 14, 1947, a day before India's declaration.

The underground insurgency began in the early 1950s when Mr. Phizo founded the Naga Federal Government (NFG) and its armed wing, the Naga Federal Army (NFA). The Central Government sent the armed forces into Naga areas to curb the insurgency and imposed the contentious Armed Forces Special Powers Act (AFSPA), which is still in place in parts of Nagaland.

The Nagas, led by Mr. Phizo, demanding an independent state outside of India, boycotted the 1952 and 1957 general elections and armed clashes grew. Unlike other groups in the north east which were accepting some form of autonomy under the Constitution, Nagas rejected this in favour of sovereignty.

Some leaders among the NNC formed their own group to hold discussions with the government, leading to the formation of the State of Nagaland in 1963. This, however, did not satisfy many in the NNC and NFG, who, following years of negotiations with the government, eventually signed the Shillong Accord of 1975, agreeing to surrender arms and accept the Constitution.



When did the NSCN come into the picture?

This signing of the Shillong Accord was not agreeable with many top leaders of the NNC and those operating from Myanmar as the agreement did not address the issue of Naga sovereignty and coerced them to accept the Constitution.

Three NNC leaders — Thuingaleng Muivah of the Tangkhul Naga tribe of Manipur's Ukhrul district, Isak Chishi Swu of the Sema tribe, and S. S. Khaplang from Myanmar's Hemis tribe, formed the National Socialist Council Of Nagaland (NSCN) to continue the armed movement. The motto of the NSCN was to create a People's Republic of Nagaland free of Indian rule.

In 1988, after years of infighting and violent clashes along tribal lines and over the main cause of the movement, the NSCN split into two factions. One, led by Mr. Muivah and Swu called the NSCN-IM and the other, led by Mr. Khaplang called the NSCN-K. The NSCN-IM demanded and continues to demand 'Greater Nagaland' or Nagalim — it wants to extend Nagaland's borders by including Naga-dominated areas in the neighbouring States of Assam, Manipur and Arunachal Pradesh. The NSCN-IM has now grown to become the most powerful insurgent group, also playing a role in the creation of smaller groups in other States. Its armed operations intensified along with illegal activities like tax extortion, smuggling of weapons and so on.

Where do the peace talks stand now?

In 1997, the Government of India got the NSCN-IM to sign a ceasefire agreement to begin the holding of talks with the aim of signing a Naga Peace Accord. After this ceasefire, there have been over a hundred rounds of talks spanning over 24 years between the Centre and the insurgent group, while a solution is still awaited. New Delhi has been holding peace parleys simultaneously with the NSCN-IM, and the Naga National Political Groups (NNPGs) comprising at least seven other extremist groups, including the NSCN (K).

In 2015, it signed a Framework Agreement with the NSCN (IM), the first step towards an actual Peace Accord. The then Joint Intelligence Chief R.N. Ravi was appointed the interlocutor for Naga peace talks and signed the agreement on behalf of the Centre. He was later appointed as Nagaland's Governor in 2019 to further the negotiations.

The negotiations hit an impasse in 2020, with the NSCN-IM demanding the removal of Mr. Ravi as interlocutor, accusing him of "high handedness" and tweaking the agreement to mislead other Naga groups. The NSCN-IM continued to demand a separate flag and constitution for the Nagas and the creation of Nagalim, which it claimed was agreed upon in the Agreement. Mr. Ravi, however, denied this claim. After Mr. Ravi's removal as the interlocutor last year, Intelligence Bureau officer A.K. Mishra was first appointed as the Centre's adviser and then the interlocutor for the peace talks. On April 19 this year, Mr. Mishra visited the NSCN-IM's camp in Dimapur to hold closed-door talks but issues over the Naga flag and constitution remain to be ironed out.

THE DELHI DUAL GOVERNANCE CONUNDRUM

Delhi has been the flashpoint of innumerable power struggles but 2015 was a momentous year in the history of the metropolis. The country's two main political parties failed miserably in an election to see who controls the National Capital Territory. The Aam Aadmi Party swept the election, winning 67 of the 70 seats. However, in the absence of statehood for Delhi, there has been a prolonged confrontation on the relative powers of the territorial administration and the Union government.



Dilemmas of dual governance

The status of Delhi being a Union Territory under Schedule 1 of the Constitution but christened the 'National Capital Territory' under Article 239 AA, engrafted by the Constitution (Sixty-ninth Amendment) Act, 2014, put the dynamics of the relationship between the elected Council of Ministers in Delhi and the Central Government under severe strain. The Administrator of Delhi, renamed as the Lieutenant Governor (L-G) under the aforementioned amendment, crossed swords with the elected government on multiple issues, including control over agencies, namely the Anti-Corruption Bureau, the Civil Services and the Electricity Board. The issues pertaining to the power to appoint the Public Prosecutor in Delhi and to appoint a Commission of Enquiry under the Commissions of Enquiry Act, etc. were vexed legal questions necessitating interpretation of the Constitution.

Though the Delhi High Court decided in favour of the Central Government relying on the status of Delhi as a Union Territory, on appeal by the NCT, the Supreme Court referred the matter to a Constitution Bench to decide on the substantial questions of law pertaining to the powers of the elected government of Delhi vis-a-vis the L-G.

The five-judge Bench opened a new jurisprudential chapter in the Administration of NCT by invoking the rule of purposive construction to say that the objectives behind the Constitution (Sixty-ninth Amendment) Act shall guide the interpretation of Article 239AA and breathed the principles of federalism and democracy into Article 239AA, thereby finding a parliamentary intent to accord a sui generis status in distinction from other Union Territories.

The Court declared that the L-G is bound by the "aid and advice" of the Council of Ministers, noting that the Delhi Assembly also has the power to make laws over all subjects that figure in the Concurrent List, and all, except three excluded subjects, in the State List. The L-G ought to act on the "aid and advice" of the Council of Ministers, except when he refers a matter to the President for a final decision.

Regarding the L-G's power to refer to the President any matter on which there is a difference of opinion between L-G and the Council of Ministers, the Supreme Court ruled that "any matter" cannot be construed to mean "every matter", and such a reference shall arise only in exceptional circumstances. L-G shall act as a facilitator rather than anointing himself as an adversary to the elected Council of Ministers. At the same time, the Court ruled that the National Capital Territory of Delhi cannot be granted the status of a State under the constitutional scheme.

Split verdict on services

After the Constitution Bench laid down the law on the broad issues involved, the contested questions were listed before a two-judge Bench. The Court unanimously held that while the Anti-corruption Bureau belongs to the province of the Centre, the Electricity Board under Government of NCT is the Appropriate Authority under the Electricity Act of 2003. While it held that only Central Government has the power to constitute enquiry Commission under the 1952 Act, the power to appoint Public Prosecutor is vested with Government of NCT. While one Judge found that services were totally outside the purview of the Government of NCT, the other held that officers below the rank of joint secretary are under the control of the Government of NCT.



Back to the Constitution Bench?

This split has resulted in the present hearing before a three-Judge Bench presided over by the Chief Justice, in the course of which the Solicitor General sought reference to a Constitution Bench. This has been opposed by the Government of the NCT of Delhi, whose counsel argued that forming another Constitution Bench to decide the matter would amount to a “review” of the earlier Constitution Bench ruling. The 3-Judge Bench has reserved its orders on the question.

It is germane to remember the observation of Justice Ashok Bhushan penned as part of the Constitution Bench decision on NCT (2018) that, “From persons holding high office, it is expected that they shall conduct themselves in faithful discharge of their duties so as to ensure smooth running of administration so that rights of all can be protected.” Unless the stakeholders recognise this axiomatic precept, Delhi would continue to be under administrative and political distress.

The 2021 amendment to the Government of National Capital Territory of Delhi Act, 1991, is a pointer to the possibility that the tug-of-war will not end. The aforementioned amendment is also under challenge before the Supreme Court.

EC SENDS NOTICE TO SOREN OVER OFFICE-OF-PROFIT ALLEGATION

The Election Commission (EC) has sent a notice to Jharkhand Chief Minister Hemant Soren over an office-of-profit charge against him for allotment of a mining lease in his name last year, an EC official said on Monday.

Under Section 9A of the Representation of the People Act, 1951, Mr. Soren could face disqualification for entering into a government contract. The Opposition Bharatiya Janata Party (BJP) in the State had raked up the issue earlier this year, demanding the Chief Minister’s resignation.

‘Misuse of power’

Former Jharkhand Chief Minister Raghubar Das had alleged that Mr. Soren misused his office by allotting a stone quarrying lease in his name on government land outside Ranchi while he was also the State Mines Minister. Mr. Soren’s party, the Jharkhand Mukti Morcha, has denied the allegations, saying that the mine was never functional and Mr. Soren had surrendered it. The BJP had made a representation to Jharkhand Governor Ramesh Bais, who then sent a reference to the poll panel to examine the matter.

LOKPAL TO GET A NEW OFFICE AT WORLD TRADE CENTRE BUILDING

Four years after the country’s first anti-corruption ombudsman to investigate complaints against public functionaries, including the Prime Minister, was appointed and almost a decade after the Act was passed by Parliament, the Lokpal of India will finally move into a swanky office at the World Trade Centre in Nauroji Nagar of south Delhi.

Spread over an area of 59,504 square feet, the office comprising two floors, has been purchased for ₹254.88 crore, according to the Department of Personnel and Training (DoPT), the administrative Ministry for the Lokpal.

On March 19, 2019, Justice Pinaki Chandra Ghosh was appointed India’s first Lokpal along with eight other members. The appointment itself was made five years after the Lokpal and Lokayukta



Act was passed in 2013 to investigate cases of corruption against certain categories of public servants.

Before the BJP came to power in 2014, the appointment of Lokpal was one of its major poll planks.

According to the 2020-21 annual report of the Lokpal of India, in the beginning it functioned from a temporary office at the Ashok Hotel in Chanakyapuri.

Later, the Department of Legal Affairs provided a part of the erstwhile ICADR Building in Vasant Kunj Institutional Area, Phase- II, New Delhi, on rent. The office of the Lokpal of India commenced its operations from the new office building with effect from 14 February, 2020. However, this office space is not sufficient for the proper functioning of the office and efforts are, therefore, being made to have a permanent office of the Lokpal of India," the report said.

Non-availability of land

The Ministry of Housing and Urban Affairs was approached for providing a suitable piece of land for the construction of a permanent office and "they have informed that no suitable land is available for allotment." Due to non-availability of land, the office of Lokpal proposed to procure built-up office space from the National Buildings Construction Corporation (India) Limited at the World Trade Centre, Nauroji Nagar, it stated.

On March 25, a meeting of the Delegated Investment Board (DIB) "appraised

and approved the proposal for acquisition of office space measuring 59,504 sq. ft. of super built area (44830 sq. ft. carpet area) comprising two floors at World Trade Centre, Nauroji Nagar, New Delhi at a cost of ₹254.88 crore through the e-Auction mode from the NBCC," the DoPT's monthly achievement report for March said. The Lokpal can inquire into allegations of corruption against anyone who is or has been Prime Minister, or a Minister in the Union government, or a Member of Parliament, as well as officials of the Union government under Groups A, B, C and D.

The body also covers complaints against chairpersons, members, officers and directors of any board or autonomous body either established by an Act of Parliament and any society or trust or body that receives foreign contribution above ₹10 lakh.

STANDING ON CEREMONY

Observance of rituals largely serves a symbolic function; they are infused with meaning that gives a semblance of human-made order to the vagaries of nature. But pushing the meaning beyond the symbolism is fraught with danger. Standing on ceremony, particularly, does not quite fit in with the roles and the responsibilities of a medical professional, and the Charak Shapath row in Tamil Nadu, in which a top official of a government medical college was put on a waitlist, has clearly dragged one ceremony beyond its original intent and purpose. While things came to a head with the suspension of the dean of Madurai Government Medical College, the controversy has been brewing since February, when the minutes of the National Medical Commission's (NMC) discussions with medical colleges were leaked. One of the points read: "No Hippocratic Oath. During white coat ceremony, the oath will be Maharishi Charak Shapath." The Charak oath appears as part of Charaka Samhita, an ancient text on Ayurveda, and seeks to, much like the Hippocratic Oath, lay down the ground rules for the practice of medicine for a student. While it emphasises compassion, and the scientific and ethical practice of medicine, it also highlights certain values embedded in the cultural and social ethos of the time of Charaka, and seen today as



retrograde. References to caste, old-style subjugation of student to a guru, and gender bias have been flagged since. Though it was later clarified that the oath was not compulsory, there were valid concerns about projecting it as a substitute for the Hippocratic Oath.

In the English version that was read out at Madurai Medical College, there were two references that are repugnant — ‘Submitting myself to my Guru (teachers) with complete dedicated feeling,’ and ‘I, (especially a male doctor) shall treat a woman only in the presence of her husband or a near relative’. The rest of the oath stresses, in simple language, the very principles of the Hippocratic Oath, including serving the sick, a pleasant bedside manner, and not being corrupt. Subsequent investigations have revealed that the dean was not even part of the decision to substitute the Charak Shapath for the Hippocratic Oath (the Students’ Council claimed responsibility), and he has since been reinstated. But launching severe action for what might have been just procedurally deviant, rather than a crime or violation of ethics, seems a knee-jerk reaction, or worse, the pursuit of a political agenda. The focus should rather be on ensuring quality medical education, inculcating in students a scientific temper, and a sense of service to patients. While Tamil Nadu has often rightly argued for States’ autonomy in a federal structure, this act adds little heft to that critical issue. For the NMC, even more so, the stress should not be on the bells and whistles, but rather on the quality of education.

THE DEBATE ON THE NATIONAL LANGUAGE

The story so far: Remarks by a Hindi actor to the effect that Hindi is the national language of India sparked a controversy recently over the status of the language under the Constitution. Many were quick to point out that there is no national language for India, and that Hindi is the official language of the Union. The official language issue was hotly debated in the Constituent Assembly, and the provisions relating to it were formulated only after a compromise that English shall continue to be used for 15 years.

What is the status of Hindi?

Under Article 343 of the Constitution, the official language of the Union shall be Hindi in Devanagari script. The international form of Indian numerals will be used for official purposes.

The Constituent Assembly was bitterly divided on the question, with members from States that did not speak Hindi initially opposing the declaration of Hindi as a national language. Proponents of Hindi were insistent that English was the language of enslavement and that it should be eliminated as early as possible. Opponents were against English being done away with, fearing that it may lead to Hindi domination in regions that did not speak the language.

There were demands to make Sanskrit the official language, while some argued in favour of ‘Hindustani’. There were differences of opinion over the script too. When opinion veered towards accepting Hindi, proponents of the language wanted the ‘Devanagari’ script to be adopted both for words and numerals. Some advocated that the Roman script be adopted, as it would facilitate faster learning of Hindi. The predominant opinion was in favour of adopting ‘international numerals’ (the Arabic form used and understood throughout the world) instead of Hindi numerals.

Ultimately, it was decided that the Constitution will only speak of an ‘official language’. And that English would continue to be used for a period of 15 years. The Constitution said that after 15



years, Parliament may by law decide on the use of English and the use of the Devanagari form of numbers for specified purposes.

What is the Eighth Schedule?

The Eighth Schedule contains a list of languages in the country. Initially, there were **14 languages** in the schedule, but now there are **22 languages**. There is no description of the sort of languages that are included or will be included in the Eighth Schedule. There are only two references to these languages in the text of the Constitution. One is in **Article 344(1), which provides for the formation of a Commission by the President, which should have a Chairman and members representing these scheduled languages**. The purpose of the Commission is to make recommendations for the progressive use of Hindi for official purposes of the Union and for restricting the use of English.

The second reference, found in **Article 351**, says it is the Union government's duty to promote the spread of Hindi so that it becomes "a medium of expression for all elements of the composite culture of India" and also to assimilate elements of forms and expressions from Hindustani and languages listed in the Eighth Schedule.

What were the 1965 protests about?

The Official Languages Act, 1963 was passed in anticipation of the expiry of the 15-year period during which the Constitution originally allowed the use of English for official purposes. Its operative section provided for the continuing use of English, notwithstanding the expiry of the 15-year period. This came into force from Jan 26, 1965, a date which marked the completion of 15 years since the Constitution was adopted.

Jawaharlal Nehru had given an assurance in 1959 that English would remain in official use and as the language of communication between the Centre and the States. The Official Languages Act, 1963, did not explicitly incorporate this assurance, causing apprehensions in some States as the January 1965 deadline neared. At that time, Prime Minister Lal Bahadur Shastri reiterated the government's commitment to move towards making Hindi the official language for all purposes.

In Tamil Nadu, then known as Madras, the prospect of the use of Hindi as the medium of examination for recruitment to the Union public services created an apprehension that Hindi would be imposed in such a way that the future employment prospects of those who do not speak Hindi will be bleak. With the Congress government in the State taking the view that the people had nothing to fear about, protests broke out in January 1965. It took a violent turn after more and more student activists joined the protest, and continued even after key Dravida Munnetra Kazhagam (DMK) leaders were arrested. More than 60 people died in police firing and other incidents as the protests went on for days. The agitation died down later, but by then the Congress at the Centre realised the sensitivity of the language issue among Tamil-speaking people. When the Official Language Rules were framed in 1976, it was made clear that the Rules apply to the whole of India, except Tamil Nadu.

What is the three-language formula?

Since the 1960s, the Centre's education policy documents speak of teaching three languages — Hindi, English and one regional language in Hindi-speaking States, and Hindi, English and the official regional language in other States. In practice, however, only some States teach both their predominant language and Hindi, besides English.



In States where Hindi is the official language, a third language is rarely taught as a compulsory subject. Tamil Nadu has been steadfastly opposing the three-language formula and sticks to teaching Tamil and English. It argues that those who need to know Hindi can learn on their own.

DISTORTION, IMPOSITION: WHY NORTHEAST GROUPS ARE AGAINST CENTRE'S HINDI PUSH

Last week, a conglomerate of 56 tribal organisations in Tripura came out in protest against what they saw as the possibility of Hindi being introduced as the script for Kokborok, the lingua franca for most tribes of the state.

The Roman Script for Kokborok Choba (RSKC) was reacting to Union Home Minister Amit Shah's comments at the 37th meeting of the Parliamentary Official Language Committee on April 2: that nine tribal communities of the Northeast have converted their dialects' scripts to Devanagari, and that all eight states of the Northeast have agreed to make Hindi compulsory in schools up to Class 10.

The comments have led to protests in several states of the region. Each Northeast state has its own set of diverse languages, ranging from Indo-Aryan to Tibeto-Burman to Austro-Asiatic families.

Tripura

Kokborok was recognised as an official language of Tripura in 1979. It is now taught in 22 degree colleges as well as Tripura Central University, using the Bengali and Roman scripts.

The debate around the script is several decades old. Two commissions had been set up, under former legislator Shyama Charan Tripura and linguist Pabitra Sarkar. While the erstwhile Left Front government preferred the Bengali script, the RSKC says both commissions found the majority of tribal people favour the Roman script.

The RSKC said it was not against Hindi or Devanagari, but strongly opposed forcible imposition. Tribal litterateur and cultural worker Chandrakanta Murasingh too said tribal activists were not against Hindi; however, the linguistic balance might be disturbed if Hindi was imposed.

Mizoram

The Mizo language or Mizo Tawng belongs to the Sino-Tibetan family. During colonial rule, Christian missionaries Reverends J H Lorrain and F W Savidge visited the Lushai Hills (now Mizoram) and introduced the Mizo alphabet in 1894, based on the Roman script. The Mizo script is called 'A Aw B'.

"It's been our script for so long. We won't accept imposition of the Hindi script over it," said Ricky Lalbiakmawia, spokesperson for MizoZirlai Pawl (MZP), Mizoram's largest student organisation.

Manipur

Manipur's Meitei Mayek or Manipuri script is 2,000 years old. The script is recognised by the Government of Manipur, and Manipuri is one of the 22 languages listed in the 8th Schedule of the Constitution.



On April 25, six student organisations of Manipur organised a public convention in protest against Shah's proposals. It adopted a series of resolutions, including one against accepting Hindi as a compulsory subject up to Class X in Manipur.

"Our language is included in the 8th Schedule, like Hindi. Hindi and Manipuri have the same status. So, imposing Hindi would mean rejecting other languages and scripts. We feel this is a majoritarian policy," said Leishangtshem Lambyanba, president, Democratic Students Alliance, Manipur.

Lambyanba said imposing Hindi may put extra pressure on students and hinder development of the local language. "Even the National Education Policy says education should be imparted in the mother language. Hindi is not our mother language," he said.

Arunachal Pradesh

Many languages are spoken in ethnically diverse Arunachal Pradesh. A recent UNESCO survey identified 33 languages as endangered and four as critically endangered. Even the most widely spoken languages, such as Adi, Nyishi, Galo and Mishmi, do not have exclusive scripts.

With almost no common indigenous language between one group and another, Hindi acts as a bridge language of sorts, All Arunachal Pradesh Students Union (AAPSU) leader Tobom Dai said. But, he said, Hindi cannot be imposed as it would further distort the language dynamics.

Assam

Assamese and Bodo are both listed in the 8th Schedule. While Assamese uses an ancient script of its own, Bodo is written in the Devanagari script. Assam has dozens of other indigenous languages, many of them without a script. Karbi, Mising and Tiwa are mostly written in the Roman script, while Rabha is usually written in the Assamese script.

All Assam Students' Union (AASU) advisor Samujjal Bhattacharya said students in Assam are studying Hindi up to Class 8 anyway. "We are opposing this move. (Students) are already studying Hindi till Class 8 and there is no point extending it further. The government should scrap the decision," he said.

He said the Devanagari script debate is not an issue for the Assamese language. Referring to other linguistic groups in Assam such as Rabha, Mising, Tiwa and Karbi, he said: "The literary bodies of those languages will decide about the script issue. From our side, we want that all tribal and ethnic languages should be developed."

NE Students' Union

Shortly after Shah's comments, the North East Students' Organisation (NESO), a conglomerate of eight student bodies, wrote to him opposing "imposition" of Hindi as a compulsory subject, as this would be detrimental for propagation of indigenous languages and would also add another subject to the curriculum.

"As per the understanding of the organisation, such a move will not usher in unity but will be a tool to create apprehensions and disharmony," the NESO letter said.



HAFLONG HINDI, A FLUENT EXAMPLE OF GIVE AND TAKE

A “nativised” Hindi associated with Assam’s only hill station is trying to hold its own amid a row over the Centre’s move to make Hindi compulsory in high schools across Northeast India.

Hindi reached Dima Hasao, a district formerly called North Cachar Hills, in the late 1800s primarily through merchants and construction workers who worked on a mountain railway system. By the time the railway line was completed in 1899, the non-tribal settlers and diverse indigenous communities across the hills had developed a pidgin to communicate among themselves.

It came to be known as Haflong Hindi, named after the headquarters of the district where the Dimasa people are the dominant community. The other tribes are Hmar, Kuki, Zeme (Naga), Biata, Vaiphei, Hrangkhoh, Khelma, Rongmei, Karbi and Jaintia.

“Haflong Hindi follows the Tibeto-Burman grammar, not the Hindi grammar, and has lexical additions from Nepali and Bengali. It has a generic plural marker and does not use numbers as in Hindi,” Monali Longmailai, who teaches linguistics at Assam University in Silchar, told The Hindu.

For instance, the plural of ladki (girl) in Haflong Hindi is ladjiluk or ladjilukun and not ladkiyaan (girls) as in “mainland” Hindi. Likewise, a tree in Haflong Hindi is gachchhi borrowed from Nepali and not ped as in Hindi, while most sound changes follow the Bengali form, she explained.

“The problem now is that with so much of migration and immigration, the younger generation of locals and Hindi-speakers from outside are mixing it up. They assume it is a wrong form of Hindi and needs to be corrected,” Ms. Longmailai said.

Though Haflong Hindi has not found its way into literature, she has been researching on a project to be published.

More than four decades ago, a Hindi teacher named Somnath Upadhyaya had attempted a Haflong Hindi dictionary that is no longer in circulation. Educationist Vanlal Bapui had brought out a Haflong Hindi primer for the Education Department of the North Cachar Hills Autonomous Council (NCHAC) in the early 1990s, but it was shelved. NCHAC chief Debolal Gorlosa declined to comment on the status of the primer.

Some linguists feel pushing the standardised Hindi as a compulsory subject in school could affect the “earthiness” of variants in the Northeast such as Shillong Hindi, which is not pidgin but informal Hindi, and the “purer” Arunachalee Hindi with tribal intonations.

“The urge to correct or find fault with the local Hindi is like tutoring a Naga person to speak more of Assamese than Nagamese,” Ms. Longmailai said.

‘STAR RATING FOR FOOD MAY MISLEAD BUYERS’

The nutrition labelling system for food packets recommended by the Food Safety and Standards Authority of India (FSSAI) will not only fail to enable consumers to make healthy choices but also mislead them about their nutritional value, warn experts who have called for the need to “insulate” policy-making from the influence of the food industry.



At a meeting in February, the FSSAI decided that when preparing the draft regulations for a Front of Package Labelling (FoPL) system, it will propose the health star rating system, which rates the overall nutritional profile of packaged food and assigns it a rating from half a star to five stars. The decision was based on an Indian Institute of Management (IIM), Ahmedabad study commissioned by the FSSAI. The move has upset public health experts who favour the warning label system such as a black-and-white stop symbol used in Chile or the red warning symbol in Israel for each of the three ingredients — salt, sugar and fat.

Warning system

“Warning signs educate consumers about harmful ingredients present in a food product and help them make healthy choices. They also give a repetitive educational message so that even for domestic cooking or buying street food that warning bell goes off. This educational component of a properly constructed warning system is missing in the health star [rating] system, which are like a movie rating system and are of no use,” K. Srinath Reddy, president, Public Health Foundation of India (PHFI), said at a press conference.

He said that the system being proposed by the food regulator was “devious” as it misled consumers about a product’s nutrition profile.

Under the health star rating system, an algorithm assigns a product a certain number of stars based on “positive” components (fibre, protein, and fruit, vegetable, nut and legume content) balanced against other components (energy, sugars, sodium, and saturated fat). He was launching a position statement endorsed by 21 organisations, including the Centre for Science and Environment, Consumer Voice, Cuts International, Indian Academy of Paediatrics, and the PHFI.

In the statement, the 21 organisations have demanded that warning labels should be made mandatory when the draft regulation is made public for stakeholder consultations; that “decisions on public health issues should be made without any conflicts of interest even at a consultative level”; and that while interactions with the food industry may happen on different platforms, they should not be part of meetings on policy decisions.

In the February meeting, of the 26 external participants, 17 were from the industry, including Dabur, Nestle, Hindustan Unilever and PepsiCo.

WHY ARE ELECTRIC VEHICLES CATCHING FIRE?

The story so far: The Union government has constituted an expert panel to probe the recent series of battery explosions in electric vehicles (EVs). Manufacturers such as Okinawa and Pure EV have recalled some batches of electric scooters after their vehicles caught fire. Last Wednesday, an 80-year-old man died at his home in Telangana’s Nizamabad district after the battery of an electric scooter exploded while being charged. After the enquiry, the Ministry of Road Transport intends to issue guidelines for EVs, including tests for compliance with safety norms.

Why is the world poised to transition to electric vehicles?

The growing concern over climate change has led to global efforts to electrify the transportation sector. In parallel, cost of Li-ion (Lithium-ion) battery technology has decreased by a staggering order of magnitude in the past decade. The convergence of these two factors has resulted in a unique time in our history where we are at the cusp of a dramatic transition in the transportation sector, with electric vehicles poised to replace petrol vehicles.



The world has taken note of this moment with governments providing incentives to usher in the transition and private industry ramping up plans for capturing the market. There is a worldwide race emerging, with vehicle companies, battery manufacturers, and material suppliers vying with each other for market share. However, Li-ion batteries are complex devices requiring a level of sophistication that can take years to perfect. Hurrying the development of this complex technology without careful safeguards can lead to increasing safety incidents, as evidenced recently on Indian roads.

What goes into a Li-ion battery?

Every Li-ion battery consists of three active components: the anode, typically graphite; the cathode, typically based on a nickel, cobalt, and manganese-based oxide; and an electrolyte, typically a salt of lithium in an inorganic solvent. Battery manufacturing is a complex operation involving forming sheets of the anode and cathode and assembling them into a sandwich structure held apart by a thin separator.

Separators, about 15 microns in thickness — about a fifth of the thickness of the human hair — perform the critical function of preventing the anode and cathode from shorting. Accidental shorting of the electrodes is a known cause of fires in Li-ion cells. It is important that the various layers are assembled with high precision with tight tolerances maintained throughout the manufacturing process. Safety features, such as thermal switches that turn off if the battery overheats, are added as the sandwich is packaged into a battery cell.

Battery cells are assembled into modules and then further assembled into packs. Li-ion batteries require tight control on the state of charge and the temperature of operation to enhance safety and increase usable life, achieved by adding multiple sensors. Packs are designed to ensure uniform temperature profile with minimal thermal variation during operation. Ensuring robust detection, coupled with battery management systems that interpret the data and change operation based on changes to the batteries state, remains critically important in enhancing battery performance. Battery packs are integrated into the vehicle in unique formfactors depending on the design of the vehicle. The location of the battery should protect it from external penetration, ensure passenger safety while taking into consideration the overall weight distribution. Close interaction between vehicle manufacturers and battery manufacturers is essential so that the whole is greater than the sum of the parts. There are multiple trade-offs in this complex ecosystem: engineering higher safety often results in higher costs and lower driving range. In this competitive landscape where companies are vying for market share, a race to the bottom can compromise safety.

What causes battery fires?

While Li-ion batteries are complex, over the last three decades numerous companies have perfected the art of manufacturing high-quality cells and integrating them into vehicles with minimal safety concerns. The energy density of petrol is five hundred times that of a typical Li-ion battery, therefore safety should be manageable if robust controls are in place. However, batteries do store energy in a small package and if the energy is released in an uncontrolled fashion, the thermal event can be significant.

Battery fires, like other fires, occur due to the convergence of three parts of the “fire triangle”: heat, oxygen, and fuel. If an adverse event such as a short circuit occurs in the battery, the internal temperature can raise as the anode and cathode release their energy through the short. This, in turn, can lead to a series of reactions from the battery materials, especially the cathode, that



release heat in an uncontrolled manner, along with oxygen. Such events also rupture the sealed battery further exposing the components to outside air and the second part of the fire triangle, namely, oxygen. The final component of the triangle is the liquid electrolyte, which is flammable and serves as a fuel. The combination leads to a catastrophic failure of the battery resulting in smoke, heat, and fire, released instantaneously and explosively.

The trigger for such events can be a result of internal shorts (like a manufacturing defect that results in sharp objects penetrating the separator), external events (an accident leading to puncture of the cell and shorting of the electrodes), overcharging the battery which leads to heat releasing reactions on the cathode (by a faulty battery management system that does not shut down charging despite the battery achieving its designed charge state), or bad thermal design at the module and pack level (by not allowing the battery internal heat to be released). Any of these triggers may cascade into a significant safety incident.

Are battery fires inevitable?

Over the past three decades, Li-ion batteries have proved to be extremely safe, with the industry increasing controls as safety incidents have surfaced. Safety is a must and is an important consideration that battery and vehicle manufacturers can design for at multiple levels from the choice of battery material to designs at the cell, pack, and vehicle level.

Preventing fires requires breaking the fire triangle. Battery cathodes are a leading cause of the heat release. Some cathodes, such as ones with lower nickel content or moving to iron phosphate, can increase safety. Tightly controlled manufacturing will prevent accidental shorts in the cells, eliminating a leading cause of fires. Many companies now add a ceramic layer on the separator to mechanically prevent shorts. Sensing the state of the battery and integrating this data into sophisticated battery management systems is an important aspect of design. Protecting the cell with robust thermal management is critical, especially in India where ambient temperatures are high. Finally, battery packs need to be protected from external penetration. Any large-scale manufacturing process inevitably has a certain percentage of defects; therefore, such steps are needed to minimise the number of adverse events. Long-term changes are also under way. Safety remains a concern for Li-ion manufacturers worldwide especially as cell sizes become larger for applications such as solar-connected storage. Companies are developing internal “switches” that turn off parts of the battery that undergo thermal events to stop them at their inception. Research is now underway to replace the flammable liquid electrolyte with a solid electrolyte to eliminate one part of the fire triangle. A similar thread of research is the development of non-flammable liquid electrolytes. All these changes promise to remove the threat of battery fires as the roll out of mass electrification takes place. Engineering safety requires commitment from all parts of the battery supply chain and tight integration between vehicle companies and battery companies. Further, regulators play an important role, providing the testing and certification needed to ensure that technology innovations perform at the level that is promised. Li-ion batteries are not forgiving of shoddy engineering and approaches that rely on cutting corners. Companies with tightly controlled manufacturing with years of experience can maintain the number of adverse safety incidents to a minimum. Such batteries maybe more expensive, but safety should not be “just another” metric. Rather, ensuring safety should be the priority for manufacturers.



REQUEST FOR PROPOSAL (RFP) “REQUIRES THAT THE FUEL CELL AIP BE SEA PROVEN, WHICH IS NOT THE CASE FOR US YET SINCE THE FRENCH NAVY DOES NOT USE SUCH A PROPULSION SYSTEM.

In June 1999, the Cabinet Committee on Security approved a 30-year plan for the Navy to indigenously build and induct 24 submarines by 2030. In the first phase, two lines of production were to be established — the first, P-75; the second, P-75I. Each line was to produce six submarines.

The contract for P-75 was signed in 2005 with the Naval Group, then known as DCNS, in partnership with Mazagon Dock Shipbuilders Ltd (MDL). The first Kalvari Class (Scorpene Class) submarine under the project was commissioned in December 2017. Another five submarines have been built since; the final one, Vagsheer, was launched last month, and will be commissioned by late 2023.

While P-75 deliveries were delayed, P-75I has seen long delays even before it has kicked off. The first Request for Information was issued in 2008, then again in 2010, but the RFP was issued only in July 2021.

This will be India’s first project under the Strategic Partnership Model — the government will give the contract to an Indian Strategic Partner (SP), which will partner with a foreign OEM to build AIP-powered submarines in the country. MDL and Larsen and Toubro are the two selected SP; the five selected OEMs are Naval Group (France), ThyssenKrupp Marine Systems (Germany), ROE (Russia), Daewoo Shipbuilding and Marine Engineering (South Korea), and Navantia (Spain).

What is the status of the project?

A Navy representative told the Parliamentary Standing Committee on Defence in 2019-20 that “we are slightly behind the curve” on P-75I. The final bids — one each by the SP in partnership with an OEM — are yet to be finalised. The project faces choppy waters; the Naval Group has already announced it is pulling out, and sources said the Russian and Spanish companies might also not proceed with their bids.

Among the concerns, as Naval Group said, is the requirement to demonstrate a sea-proven fuel cell AIP. While some manufacturers may have the technology, it may not have been proven at sea yet. Some analysts believe that while the RFP was clear about these conditions, it is possible that the OEMs were expecting certain concessions in the requirements eventually.

Another problem for the OEMs, sources said, is the transfer of technology, which is built into the process under the SP model. Sources believe that the OEMs are unwilling to share all their expertise, especially the niche technologies that they have built.

As things stand, sources said, only ThyssenKrupp Marine Systems and the South Korean company seem to be in the fray. According to experts, even if all goes smoothly here onward, the earliest the first P-75I submarine can be commissioned is around 2032.

Why does the Navy want AIP subs?

Issuing the RFP last year, the government said it “envisages indigenous construction of six modern conventional submarines (including associated shore support, Engineering Support Package, training and spares package) with contemporary equipment, weapons & sensors including Fuel-



Cell based AIP (Air Independent Propulsion Plant), advanced torpedoes, modern missiles and state of the art countermeasure systems.”

AIP, it said, “has a force multiplier effect on lethality of a diesel electric submarine as it enhances the submerged endurance of the boat several folds. Fuel cell-based AIP has merits in performance compared to other technologies.”

Simply put, AIP technology allows a conventional submarine to remain submerged for much longer than ordinary diesel-electric submarines. All conventional submarines have to surface to run their generators that recharge the batteries that allow the boat to function under water.

However, the more frequently a submarine surfaces, the higher the chances of it being detected. AIP allows a submarine to remain submerged for more than a fortnight, compared to two to three days for diesel-electric boats.

While the six P-75 submarines are diesel-electric, they can be fitted with AIP technology later in their lives. By the time P-75I is completed under the 30-year project, India is projected to have six diesel-electric, six AIP-powered, and six nuclear attack submarines (yet to be built).

India has been working to develop AIP technology indigenously as well. A tableaux of the Defence Research and Development Organisation (DRDO) at this year’s Republic Day parade showcased AIP. In March 2021, the Defence Ministry had said DRDO had achieved an “important milestone in the development of Air Independent Propulsion (AIP) System by proving the land-based prototype”. However, experts have certain doubts about DRDO’s AIP prototype, and many fear it may not be ready even by the time the first Kalvari Class submarine comes for refitting starting 2024.

Around 10 countries have developed or are close to building AIP technology, and almost 20 nations have AIP submarines.

What submarines does India have now?

India has 16 conventional diesel-electric submarines, which are classified as SSKs. After the last two Kalvari Class subs are commissioned under P-75, this number will go up to 18. India also has two nuclear ballistic submarines, classified SSBN.

Of the 16 SSKs, four are of Shishumar Class, which were bought and then built in India in collaboration with the Germans starting 1980s; eight are Kilo Class or Sindhughosh Class submarines bought from Russia (including erstwhile USSR) between 1984 and 2000; and four are Kalvari Class built in India at MDL.

AIP let’s conventional subs stay submerged for longer

DIESEL-ELECTRIC SUBMARINES must come to the surface or close to it to run their generators to recharge the batteries that propel them underwater. AIP is a mechanism that allows the batteries to be charged even while the boat is submerged. However, even with AIP, the submarine needs to surface every three weeks or so. According to a 2015 article on the website of the independent strategic and defence think tank Australian Strategic Policy Institute, AIP “offers the possibility of increasing underwater endurance by a factor of up to 3 or 4, which reduces the indiscretion ratio significantly”.



THERE ARE DIFFERENT TYPES of AIP mechanisms available; what India is looking for under the P-75I project is AIP based on fuel cells. These cells convert chemical energy into electrical energy, recharging the batteries of the submarine.

THERE ARE DOWNSIDES TO AIP. The Australian paper says “installing AIP increases the length and weight of the boats, requires pressurised liquid oxygen (LOX) storage on-board and supply for all three technologies”. Also, “MESMA and the Stirling engine have some acoustic noise from moving parts; and the...submarine’s unit cost [increases] by around 10%.”

THE SPICEJET ‘ACCIDENT’

The story so far: On the evening of May 1, a Boeing 737-800 aircraft of low-cost private carrier SpiceJet, on a scheduled flight (SG-945) operating from Mumbai to Andal (Durgapur, West Bengal) with 195 passengers on board (189 passengers and six crew), experienced severe turbulence, at around 16,000 feet, while on approach to the destination airport.

What happened on the flight?

Due to severe turbulence, nearly 17 passengers suffered head, shoulder, spinal, forehead and facial injuries that were serious enough to warrant hospitalisation. The aircraft too experienced damage in the cabin. Visuals showed oxygen mask compartments open, sections of the cabin ceiling having come apart exposing ducts, damage to some seat handrests and the cabin being in a state of disarray, with items from the galley as well as passenger belongings strewn around. The flight crew took manual control of the aircraft (from autopilot mode) and the aircraft made a safe landing about 20 minutes later.

WHAT IS THE LOAN SCHEME FOR INMATES IN MAHARASHTRA’S PRISONS?

Maharashtra Home Minister Dilip Walse Patil launches the Jivhala scheme at Yerawada Central Prison in Pune on May 1, 2022.

The Maharashtra Department of Prisons has launched a loan scheme for inmates serving sentences in jails across the state. The credit scheme titled Jivhala is being offered by the Maharashtra State Cooperative Bank. The pilot was introduced for prisoners at Yerawada Central Jail in Pune, and will gradually be extended to nearly 60 prisons across the state.

According to bank and prison officials, this is likely the first kind of credit scheme for prisoners in India. Existing loans initiatives for inmates are for rehabilitation after completion of their prison terms.

So, what is this initiative, and who is eligible? How will inmates repay the loans? The Indian Express explains:

What is Maharashtra’s loan scheme for prisoners, and who is eligible?

The credit scheme, called Jivhala meaning ‘affection’ in Marathi, has been launched primarily for convicted inmates who are undergoing a prison sentence of more than three years. Officials said majority of the inmates are sole breadwinners, and their incarceration has left their families without a source of income. Therefore, while the loan will be disbursed in the name of the inmate, it will be issued to designated family members.



In the initial phase, a loan of Rs 50,000 will be given at a 7 per cent interest rate. Of the interest the bank earns, one per cent will be given back to the system as a contribution to the Prisoners' Welfare Fund. The loan will be provided without any requirement of mortgage or guarantor.

Inmates will be able to use the loans for education of their children, medical treatment of family members, legal fees, or any other expenses. Bank officials said they found that over 75 per cent of the applications were for agricultural purposes.

How will the inmates repay the loans?

On entering the prison system, an inmate is categorised as skilled, semi-skilled or un-skilled and assigned work in various industrial and manufacturing units inside the prison. For this work, they are paid anywhere between Rs 50 to 70 as daily wages.

The money, deposited in their accounts, can be used to buy essentials from the jail canteen and/or can be sent home. The inmates get their earnings from the jail upon their release.

Bank officials said once an inmate takes a loan, the Equated Monthly Installment calculated will be directly deducted from their prison accounts.

In the pilot phase, loan applications of 222 male and eight female inmates from Yerawada Central Prison are being processed by bank officials. Based on the response to the pilot and creditworthiness of the inmates, a decision will be taken to increase the loan amount.

The scheme will soon be expanded to other prisons in the state, including central prisons, open prisons and district prisons.

Officials said other than being a crucial financial aid to inmates' families, the credit scheme will also help preserve delicate relations between inmates and their family members, and also be used to build a foundation for their life after their sentence is served.

HIGHEST SEX RATIO AT BIRTH IN LADAKH

Ladakh recorded the highest sex ratio at birth in the country in 2020, followed by Arunachal Pradesh, Andaman and Nicobar Islands, Tripura and Kerala, according to the annual report on Vital Statistics based on 2020 Civil Registration System report.

"Highest Sex Ratio at Birth (SRB) based on registered events has been reported by Ladakh (1,104) followed by Arunachal Pradesh (1,011), A&N Islands (984), Tripura (974), and Kerala (969)," the report released by the Registrar-General of India on Tuesday said. Sex ratio at birth is the number of females per thousand males.

The lowest sex ratio was reported by Manipur (880), followed by Dadra and Nagar Haveli and Daman and Diu (898), Gujarat (909), Haryana (916) and Madhya Pradesh (921).

2019 data: In 2019, the highest sex ratio at birth was reported by Arunachal Pradesh (1,024), followed by Nagaland (1,001), Mizoram (975) and A&N Islands (965), and the lowest sex ratio was reported by Gujarat (901), Assam (903), Madhya Pradesh (905) and Jammu & Kashmir (909).

The report said that the requisite information from Maharashtra, Sikkim, Uttar Pradesh and Delhi on sex ratio was "not available." They had not provided the said data in 2019 as well.



“The sex ratio at birth of registered events is an important indicator to map the sex differential of the population at the beginning of their life. The sex ratio at birth has been calculated after deducting the delayed registration of more than one year for the year 2020,” the report said. None of the States or UTs have recorded sex ratio at birth below 880.

The report noted that 1,43,379 infant deaths were registered in 2020 and the share of rural areas was only 23.4%, while that of urban areas was 76.6% in total registered infant deaths. “Non-registration of infant deaths in rural areas was a cause of concern,” it stated.

WHAT IS SHIGELLA, THE BACTERIA THAT KILLED A GIRL AFTER SHE ATE SHAWARMA IN KERALA?

The presence of the bacteria was confirmed in the blood and faeces of people undergoing treatment after they consumed chicken shawarma from an eatery at Cheruvathur in Kasaragod last week. Police have arrested the owner and staff of the eatery.

While food poisoning is fairly common and can occur in a range of situations, how common is Shigella infection, what are its symptoms, and when should you consult a doctor?

First, what is Shigella?

Shigella is a bacterium that belongs to the enterobacter family — a group of bacteria that reside in the intestine, not all of which cause disease in humans. It mainly affects the intestine and results in diarrhoea, sometimes bloody, stomach pain, and fever.

The infection spreads easily as it takes only “a small number of bacteria to make someone ill”, says the US Centres for Disease Control and Prevention (CDC). It is a food- and water-borne infection, and can happen when someone consumes contaminated food — like in the case from Kerala — unwashed fruit or vegetables.

The disease is easily spread by direct or indirect contact with the excrement of the patient. You can get the infection if you swim or take a bath in contaminated water.

How widespread is Shigella infection?

“Shigellosis happens, but it is not a very common infection. We usually see infections like typhoid and cholera because of contaminated foods. Perhaps one in 100 cases of diarrhoea in our hospital would be shigellosis,” Dr Suranjit Chatterjee, senior consultant of internal medicine at Indraprastha Apollo hospital in New Delhi, said.

Shigella outbreaks appear to be exacerbated during pregnancy and in children under five years of age, and in those with weakened immune systems.

There are four types of Shigella bacteria that affect humans — Shigella sonnei, Shigella flexneri, Shigella boydii, and Shigella dysenteriae. The fourth type causes the most severe disease because of the toxin it produces.

But is it common for people to die of the infection?

It is not. Doctors say that the infection does not generally kill, unless the patient has a weak immune system or the pathogen is resistant to the antibiotics that are prescribed. “It is a very



treatable condition; if a patient reaches hospital on time they can effectively be treated using IV antibiotics,” Dr Chatterjee said.

He said that doctors usually send samples of patients with severe diarrhoea for culture to see what pathogen is causing the symptoms, in order to decide which antibiotics were likely to work the best. “In the meanwhile, doctors prescribe antibiotics for the most common infections that cause diarrhoea, and they will generally work for Shigella as well,” Dr Chatterjee said.

The problem though, occurs when the antibiotics do not work because the bacteria are resistant to it.

“The problem with Shigella is that it produces a lot of toxins that can affect all other organs. So, if the bacteria continue to proliferate in the body even after giving the antibiotics, it will continue to produce toxins, which can then affect the kidney, cause seizures, lead to multi-organ failure, and shock, and even turn fatal,” Dr Amit Singh, associate professor at the Centre for Infectious Disease Research at the Indian Institute of Science, Bangalore, said.

This, however, does not happen in most cases, Dr Singh said. “The mortality of the infection is less than 1%,” he said.

So if you have abdominal discomfort or an upset stomach, at which point should you start worrying?

There is no need to rush to a doctor or a hospital every time you have loose motions, Dr Chatterjee said. However, if you have loose motions accompanied with high fever, blood in the stool, or constant vomiting such that you cannot keep any fluids down, you must get yourself to a doctor.

A person who has severe diarrhoea — which means 20 or more bowel movements in a day — must see a doctor within a day; a patient with mild diarrhoea may wait for three to four days before going to a doctor.

“This”, Dr Chatterjee said, “is true of any diarrhoea, whether it is because of Shigella or any other reason”. It is possible that the student from Kerala who died after eating the shawarma did not get medical treatment in time, he said.

What precautions should you take?

The measures to prevent a Shigella infection are the same as that of any other food- and water-borne infection. Wash your hands thoroughly before and after a meal. Wash your hands properly after a bowel movement. Ensure the water that you drink is clean and the fruits and vegetables are fresh.

“Products such as milk, chicken, and fish can get infected easily and must be kept at a proper temperature. They must also be properly cooked,” Dr Singh said.

TRADITIONAL WISDOM KEEPS INDIGENOUS SEEDS ALIVE

Restoring the link between crop diversity and climate resilience, tribal women in southern Rajasthan’s Banswara district have utilised traditional wisdom to preserve indigenous seed varieties, which are on the verge of extinction. The initiative has immensely helped small and marginal farmers in the region. A women’s group, which has named itself “Saksham Samooh”, has taken up the preservation of seeds as a mission in the form of Beej Swaraj or seed sovereignty, helping out the tribal communities with training and guidance. The group is supplying seeds to



the farmers regularly for cultivation of crops and vegetables. The indigenous seed varieties are inherently compatible with the local farming conditions and are economically practical and environmentally more sustainable than the high-yielding varieties being used in agricultural fields. Besides, these seeds are pest-resistant and require a very limited use of chemical pesticides. Saksham Samooh, based in Sangela village in Banswara district's Garhi tehsil, has utilised traditional techniques for filling the seeds in sacks, sealing them and keeping them in the granary for the next crop season. "We decide on seeds during the harvesting of crops and keep them separately based on their weight and quality," Kunkun Devi, a member of the group, told. To get vegetable seeds, women allow the vegetables to ripen and later let them dry, separate the seeds and keep them in a store. While several farmers are dependent on the government agencies or private firms for getting seeds, the women's initiative had provided them with an alternative, with which they are keeping the indigenous seeds alive. Kanti Devi, another group member, said the women in the tribal-dominated region had been preserving seeds as a family tradition and tribal culture. "We have taken forward this tradition by giving it an institutional shape," she said, while affirming that the women had learnt the techniques to identify the quality and quantity of seeds to be preserved in their families. Farmers in the tribal belt mostly practise rain-fed cultivation of paddy, maize, pulses, moong and wheat. Additionally, the female members of tribal households grow a variety of vegetables in their kitchen gardens to meet the family needs. In this process, preservation of indigenous seeds has become a part of upbringing of children. Banswara-based Vaagdhara, which works on tribal livelihood issues, has generated awareness among the tribal communities about the significance of indigenous seeds. Vaagdhara secretary Jayesh Joshi said the concept of green revolution had drastically shifted the focus of agriculture away from biodiversity to high-yielding crops. "This has resulted in the reduction of genetic base of traditional seed varieties that are now on the verge of extinction," Mr. Joshi said. The Beej Swaraj philosophy, based on agricultural management with indigenous resources, would succeed in maintaining an appropriate health status for the tribal population, he said. Significantly, the women farmers had surplus seeds, enough to share with others, during the pandemic, when big agriculturists were facing the problem of seed procurement because of travel restrictions. While adopting the seed-saving techniques, tribal women have also been holding seed swapping events to fulfil the need for climate-resilient seeds and make the farmers ready to face an emergency situation.

INTENSE HEAT

The story so far: India is in the throes of an unusually long series of heatwaves that began in the end of March and scorched north India for most of April. The India Meteorological Department (IMD) said April was the hottest in northwest India in 122 years. It has also been an unusually hot April — with temperatures touching above 40°C — in large parts of Bihar, Jharkhand and West Bengal.

How widespread is the heatwave?

Records from IMD suggest that the average maximum temperature till April 27 was 35.7°C, the highest in five years for this month. In Madhya Pradesh, Rajasthan, Punjab, and Gujarat, the average maximum temperature in April 2022 so far has been the highest since 1951; while it has been the second highest in Delhi, Uttar Pradesh, and Haryana. In most of these States, the temperature has been consistently above 42°C and around 5-6 degrees above normal for this time of the year.



Latest IMD forecasts say heat wave conditions prevail in many parts of Punjab, northwest Rajasthan and Vidarbha, Maharashtra. It's also unusually hot in parts of Himachal Pradesh, west Madhya Pradesh, Jharkhand, Bihar, Gangetic West Bengal and Odisha. Maximum temperatures were 43-46 degree Celsius over most parts of Rajasthan, Vidarbha, Madhya Pradesh and east Uttar Pradesh, in many parts of Gujarat and interior Odisha; in some parts of central Maharashtra and in isolated pockets of Bihar, Jharkhand and interior Gangetic West Bengal. Temperatures were over 40-43 degree Celsius in most parts of Haryana-Delhi, Punjab and in isolated pockets of west Uttar Pradesh, Chhattisgarh, Marathwada, Telangana and Rayalaseema. These scorching conditions are expected to continue until the middle of next week until, the agency says, a western disturbance from West Asia brings rain to parts of north and north-western India. While it is not unusual for the latter half of April to be dry and hot in most of north, west and central India, this year is unusual in that this follows the warmest March in 121 years with the maximum temperature across the country nearly 1.86°C above normal.

How are heatwaves defined?

Heatwave is declared when the maximum temperature is over 40°C and at least 4.5 notches above normal. A severe heatwave is declared if the departure from normal temperature is more than 6.4 degrees, according to the IMD. Based on absolute recorded temperatures, a heatwave is declared when an area logs a maximum temperature of 45°C. A severe heatwave is declared if the maximum temperature crosses 47 degrees.

Is climate change responsible?

The heat-trapping consequences of global warming imply that climate extremes such as heatwaves are expected to rise in frequency. Instances of extreme rainfall, as well as longer rainless spells are expected, according to assessments by the Intergovernmental Panel on Climate Change. The main reason for the scorching heat in the northern parts of the country is lack of rainfall. Usually, periods of high temperature are punctuated by periodic episodes of rain but this was largely absent during March and April. Ironically, April also saw maximum instances of extreme rainfall since 2018 though it was concentrated in the south and north-eastern India. The rain-bearing western disturbances originate because of temperature gradients between the northernmost parts of the globe and the latitudes passing through West Asia. Weaker gradients mean weaker rains. This March and April, cooler than normal conditions in the Pacific Ocean failed to aid rainfall in north India.

What impact do heatwaves have over India?

Research through the years shows that the number of heatwave days in India is increasing every decade. From 413 in 1981-90 to 575 in 2001-10 and 600 in 2011-20, the number of days that see extremely hot days is persistently increasing at 103 weather stations. Some parts along eastern India, such as Andhra Pradesh, Telangana and Odisha, also register higher humidity along with high temperatures, leading to the rise in a condition called 'wet bulb' temperature, that at its mildest can cause extreme discomfort and at its worst cause dehydration and death. Heatwaves have killed more than 17,000 people in 50 years in India, according to a research study by IMD scientists. However, the intensity and length of heatwaves don't have a direct connection to India's monsoon that sets in over Kerala in June.



What is being done to buffer against high temperatures?

Over the years, forecast systems have improved that allow heatwave warnings to be disseminated via electronic channels and phones instantaneously. Many State governments across the country have declared school holidays; some have highlighted the dangers of working outdoors during the day. Many State governments award monetary compensation for deaths linked to heatwaves.

INVIGORATING THE AYUSH INDUSTRY

The global market for herbal medicine was valued at \$657.5 billion in 2020. It is expected to grow to \$746.9 billion in 2022. In China, the traditional medicine industry had total revenue of \$37.41 billion in 2018, according to an IBISWorld report. In fact, the Healthy China 2030 plan forecasts that the value of traditional Chinese medicine (TCM) market may reach \$737.9 billion within China and globally by 2030.

The growth of the TCM industry in China is attributed to the immense attention the sector has received in the country. In 1982, the Constitution of China gave full recognition to TCM. Since 2009, there has been continuous support for TCM in health policies. China has focused upon developing quality infrastructure for TCM to co-exist with modern medicine under the same roof.

The NAM scheme

In India, the National Ayush Mission (NAM) was launched in 2014 by the Department of Ayush, Ministry of Health and Family Welfare, to promote Ayush systems and address the needs of the sector in a comprehensive way. Providing cost-effective services, strengthening educational systems, quality control of drugs and sustainable availability of raw materials are the main objectives of NAM. The industry is projected to reach \$23.3 billion in 2022, according to a Research and Information System for Developing Countries (RIS), 2021, report. The Indian herbal medicine market is worth \$18.1 billion.

The Indian Ayush sector has grown by 17% between 2014 and 2020. Related segments such as plant derivatives grew by 21%, plant extracts by 14.7%, and herbal plants by 14.3% during the same period.

Under the 'Medicinal Plants' component of the NAM scheme (2015-16 to 2020-21), the cultivation of prioritised medicinal plants in identified clusters/zones is being supported. Cultivation of plants on farmer's land, establishment of nurseries with backward linkages, post-harvest management with forward linkages, and primary processing, marketing, etc., are all covered under the scheme. For the cultivation of plants, subsidies at 30%, 50% and 75% of the cultivation cost for 140 medicinal plants are being provided. So far, approximately 56,396 hectares are under the cultivation of medicinal plants, as per the Ministry of Ayush.

Further, last year Union Ayush Minister Sarbananda Sonowal announced that medicinal plants will be cultivated on 75,000 hectares of land. The Ministry of Finance has also announced a ₹4000-crore package under the Aatmanirbhar Bharat Abhiyaan for the promotion of herbal cultivation.

There is no doubt about the potential of the sector and the above measures will surely help. However, the Ayush sector requires a multi-dimensional thrust, ranging from initiatives at the institutional level, massive awareness and promotion of cultivation of medicinal plants by farmers, to trade-related interventions and quality focus measures.



SMPBs to be strengthened

The National Medicinal Plant Board (NMPB) implements the medicinal plant component of Ayush through state bodies—State Medicinal Plant Boards (SMPBs). The organisational structure of SMPBs needs to be strengthened. They should have experts for conservation, cultivation, R&D, herbal garden and nurseries, IEC and marketing and trade of medicinal plants. On the trade front, developing comprehensive databases on Ayush trade, products and raw materials is needed. To date, most ISM (Indian System of Medicine) products, herbal products and medicinal plants products are not identified under specific HS (Harmonised system) codes. Expansion of HS national lines to accommodate various features of traditional medicine and medicinal plant products based on existing requirements is required to provide more comprehensive trade data on Ayurvedic products.

Prime Minister Narendra Modi laid the foundation of the WHO-Global Centre for Traditional Medicine in Jamnagar on April 19, 2022. This will be the first and only global outpost centre for traditional medicine across the world.

NITI Aayog has already constituted a committee and four working groups on integrative medicine, with more than 50 experts across the country, to provide deeper insights and recommendations in the areas of education, research, clinical practice and public health and administration. Considerable progress has been made by the committee for the finalisation of the report. Integration of Ayush systems into mainstream systems will certainly give wider acceptance for traditional systems of the country.

The Ayush industry in India can provide cost-effective healthcare to people across States. It has all the ingredients of success, to co-exist with the modern health systems, as a choice-based system of traditional medicine.

WHO ESTIMATES 4.7 MILLION COVID-LINKED DEATHS IN INDIA

There were likely 47 lakh deaths, directly or indirectly attributable to COVID-19, in India in 2020 and 2021, a report by the World Health Organization (WHO) said on Thursday. These are the highest, by far, for any country and make up nearly a third of the 15 million such deaths estimated by the agency globally.

India officially estimated only 4.8 lakh cumulative deaths linked to COVID-19 as of December 2021, which implies that the WHO estimate is nearly 10 times the government count. As of May, India's official COVID-19 death toll is 5.2 lakh.

Minutes after the WHO released its estimate, India reiterated its "objection to the methodology" used.

"These sobering data not only point to the impact of the pandemic but also to the need for all countries to invest in more resilient health systems that can sustain essential health services during crises, including stronger health information systems," WHO Director-General Tedros Adhanom Ghebreyesus said. "WHO is committed to working with all countries to strengthen their health information systems...."

Excess deaths are calculated as the difference between the number of deaths that have occurred and the number that would be expected in the absence of the pandemic based on data from earlier



years. Excess mortality includes deaths associated with COVID-19 directly or indirectly (due to the pandemic's impact on health systems).

Deaths indirectly linked to COVID-19 are attributable to other health conditions for which people were unable to access prevention and treatment because health systems were overburdened by the pandemic. The estimated number of excess deaths can be influenced also by deaths averted during the pandemic due to lower risks of certain events, such as motor-vehicle accidents or occupational injuries.

Most of the excess deaths (84%) are concentrated in South-East Asia, Europe, and the Americas. About two-thirds of the excess deaths are concentrated in 10 countries. The pandemic globally claimed more men than women (57% male, 43% female). There were 5.3 lakh deaths in men 60 and older in India in 2020 and 19 lakh deaths in that age group in 2021. There were 3.5 lakh and 15 lakh, respectively, for women.

India on Tuesday made public birth and death registration data from 2020 that reported 4.75 lakh excess deaths from all causes in 2020 over 2019. This data is from the Civil Registration System (CRS) that only counts deaths registered and doesn't break down causes of death.

India's prime objections are that the WHO used mathematical modelling to estimate deaths for India that did not accurately reflect the Indian situation and ignored official estimates.

WHO officials at a press conference did not directly respond to India's criticism but said that they were in dialogue with Indian government experts and that the estimates would be updated.

EXPLAINED: A PORTABLE DEVICE THAT TURNS SEAWATER INTO DRINKING WATER, WITHOUT USING FILTERS

Massachusetts Institute of Technology (MIT) researchers have developed a portable desalination unit, weighing less than 10 kg, that can remove particles and salts to generate drinking water. **WHAT IT DOES:** The suitcase-sized device requires less power to operate than a cell phone charger. It can also be driven by a small, portable solar panel, which can be purchased online for around \$50 (about Rs 3,800 at current exchange rates), MIT said in a news release. It said the device automatically generates drinking water that exceeds World Health Organization (WHO) quality standards. The device runs with the push of one button. While other portable desalination units that require water to pass through filters, this device utilises electrical power to remove particles from drinking water. Eliminating the need for replacement filters greatly reduces the long-term maintenance requirements. This, the release said, could enable the unit to be deployed in remote and severely resource-limited areas. It could also be used to aid refugees fleeing natural disasters or by soldiers carrying out long-term military operations, it said. The researchers have described the device in the American Chemical Society journal *Environmental Science & Technology*. "We worked for years on the physics behind individual desalination processes, but pushing all those advances into a box, building a system, and demonstrating it in the ocean, that was a really meaningful and rewarding experience for me," the release quoted senior author Jongyoon Han, a professor of electrical engineering and computer science and of biological engineering, as saying. **HOW IT WORKS:** The unit relies on a technique called ion concentration polarisation, which was pioneered by Han's group more than 10 years ago, the release said. Rather than filtering water, the process applies an electrical field that causes positively or negatively charged particles — including salt molecules, bacteria, viruses — to be repelled as they flow past.



The charged particles are funnelled into a second stream of water that is eventually discharged. The process removes solids, allowing clean water to pass through the channel.

NATIONAL MONUMENT TAG FOR 1,000-YEAR-OLD LAKE IN DELHI'S MEHRAULI

The Anang Tal lake in South Delhi, believed to have been built a thousand years ago, will soon get a new lease of life. Union Minister of State for Culture and Parliamentary Affairs Arjun Ram Meghwal, who visited the site earlier this week, has asked the Delhi Development Authority (DDA), under whose jurisdiction the area falls, to restore the historic lake in Mehrauli which is said to be created by Tomar King, Anangpal II, in 1,060 AD. The minister, who was accompanied by National Monuments Authority (NMA) chairman Tarun Vijay, Archaeological Survey of India (ASI) director Arvin Manjul and senior DDA officers, has asked officials to expedite conservation work so the site could be declared a national monument. On the occasion, Meghwal said he was surprised to see “the dilapidated condition of the millennium-old Anang Tal, which signifies the beginning of Delhi”. Speaking to The Indian Express, ASI officials said, “The proposal to declare Anang Tal as a national monument is indeed under consideration, and finer details are being worked out.” As per the website of the National Mission on Monuments and Antiquities (NMMA), a government agency, Anang Tal is situated “to the north of Jog Maya temple and approximately 500 metres to the northwest of Qutub Complex”, and dates back to 1,060 AD. “Tradition ascribes this tank to a Tomar King, Anangpal II, the builder of Lal Kot. It is said to have been a place of a general resort but now it is dried up and used for cultivation. It is also said Alauddin Khalji, in 1296-1316 AD, utilised the water of this tank when he built (Qutub) minar and extended the Qutub-ul-Islam mosque,” says the NMMA website. A statement issued by the Ministry of Culture Wednesday said, “Anang Tal has a strong Rajasthan connection as Maharaja Anang Pal is known as nana (maternal grandfather) of Prithviraj Chauhan whose fort Rai Pithora is on the list of the ASI. These monuments have turned into a garbage dump today... The NMA has been trying for the last two years to bring back the glory of pre-Islamic monuments destroyed by foreign invaders.” It was between 1993 and 1995 when noted archaeologist B R Mani, the former additional director general of ASI, led excavations at the site under the ASI. Mani said, “There is still some water left in Anang Tal but gradually the mini-lake has shrunk over time.” He suggested that until the water body is declared a protected monument, it will not survive.

WHAT MAKES THE BADAMI CAVE TEMPLES SYMBOLS OF SHARED THOUGHT AND LEARNING

A short drive from town takes us to the soaring volcanic rocks of Badami, so called because they look like giant almonds grown on another planet but piled up haphazardly, terrifying, fiery, burning like embers, breaking through the earth's crust. It is in these caves that the Chalukyan kings gave full play to the theory that size does matter, the sculpted murals breathing down our puny human lives and overpowering us with their sheer beauty, amid everyday reality. Look at any of the faces here long enough and you would feel they will nod any moment, probably frozen by a spell of some sort. This region saw an efflorescence of the Indic way of life. Both stone and iron age tools and structures at this site indicate that man harnessed iron ore and displayed a rare engineering ability even during the early years of his evolution. By the time of the Chalukyas, who made Badami their capital (mid-6th century), the region had not only become a great hub of commercial activity and wealth but also one of learning. It had found a place in Ptolemy's A Guide to Geography of the mid-second century. This book contains a brief account of places of commercial importance to the Roman world. So, the Deccan kingdom was economically prosperous, at least from the beginning of the Common Era. The Chalukyas, who unified the

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



Deccan kingdoms between Narmada and Cauvery, and ruled with an unbroken run of stability, patronised a cultural revolution. Be it art, sculpture, literature, performance arts and intelligent discourses, the military might of Pulakesi I and II, as well as Vikramaditya, was overwritten by a certain excellence of the mind. Dwarfed by the sheer power of the gods, you do understand why Adela Quested ran down the caves in the middle of her solo exploration in *A Passage to India*. But then there's a harmony like no other, Shaivaite, Vaishnavite and Jain sculptures find their place in cavernous halls tiered above one another. It is a pure celebration of art forms, beginning with Shiva. He appears in the most frequently carved version of the Natya Shiva, documenting all the postures that make up our Natyashastra. With nine arms on the left and nine on the right, you would find all the 81 postures of Bharatanatyam as we know it. This cave was probably sculpted around 550 AD but the emotions and expressions indicate the sculptor had a fine appreciation of the arts. Why else would we see Ganesha dancing along and even one of the ganas beating the drum. The Nandi bull keeps his head bowed, lost in the sound of music, swaying his head to the beats. Interestingly, Ganesha here is quite fit and doesn't have a potbelly. The two fusion forms of Shiva are significant harmony symbols, one as Harihara, half-himself and half-Vishnu, signifying the coming together of two religious sects, and the other of Ardhanarishwara, a surgical union of the male and female halves. The perfect union results in a new, harmonised generation represented by playful children all around, sleeping, crawling, tossing and turning. The Vishnu cave has lesser sculptures but are more impactful because they seem to be in motion. The patron God of the Chalukyas seems to have been cast in a manner mimicking their courtly demeanour. So, there is Varaha (an avatar of Vishnu), holding Bhudevi (Mother Earth) aloft in one hand, his feet stomping the netherworld, the fury so apparent that it would appear that the mural would crack from side to side. And in sheer desperation and panic, Bhudevi holds on to his tusk to avoid a fall. Equally striking is Narasimha, who, in a rare display of good mood, abandons his destructive anger for a more indulgent half-smile, resting his hand on a royal sceptre. In another unconventional representation, the main figure of Vishnu is seen sitting upright on Sheshnag, not reclining or sleeping, perhaps to endow him with a regal character.

WHEN I HAD A SLICE OF TIBET WITH MY TEA IN KANGRA VALLEY

In Kangra, where spirituality and culture converge, the scent of apple orchards wafts in the air and the Dhauladhar mountain range awaits seekers. The story goes that the Kangra Fort was built shortly after the battle of the Mahabharata, by a maharaja of the Katoch dynasty (the erstwhile ruling family, still connected to the fort). Over the following centuries, it accumulated vast amounts of wealth donated to the highly venerated Ambika Devi Temple in the fort. Himachal can get in peak summer, but a bottle of water from a shop outside the fort tides us over. Kangra Fort, the largest fort in the Himalayas (and the eighth largest in India) is a behemoth, not lightly approached. Of course, that treasure couldn't be hidden for long, and word spread. Over the years, one invader after another attacked Kangra Fort with an eye on its wealth. Alexander, some believe, was one of those; Mahmud of Ghazni definitely was (and he took many camel-loads of treasure back to Ghazni). Mohammad bin Tughlaq attacked, and then, Jahangir; so did Ranjit Singh, who — like Jahangir before him, and the British after — succeeded in capturing the fort. On a hot afternoon, over a century after a cataclysmic earthquake destroyed much of the fort. And all around loom the mountains of Kangra. The most populous district of Himachal Pradesh, this is a land not just of cedars and snow, but much more. Tea, for one, which grows in green carpets blanketing the hills. Palampur, where we stay at the Taragarh Palace — once owned by the royal family of Kashmir, now a heritage hotel — is where the tea is at its most visible. Tea estates spread over the hills, the bushes abutting the road. Reetha trees, shady and laden with soap nuts, spread overhead, and red-billed blue magpies, bright-eyed and long-tailed, hop about

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR

The coolness and the serenity envelop us even at the tea factory and gardens of the Wah Tea Estate. A cheesy name for a tea, I think (what? Wah, Wah? Instead of Wah, Taj?). But our guide, provided by the estate, explains. The estate is named for the (now Pakistani) town of Wah, hometown of Sikandar Ali Khan, who established this tea estate in 1857. The estate, sprawling across 500 acres, still flourishes, though no longer owned by the Khan family. The brewed tea, of which we are given several samples to taste, is imbued with the sunlight, the piney fragrance, the spirit of Kangra.

The fort (in 1905), there's no sign of the wealth. The fort's walls march up the mountainside, past a 300-year-old peepal tree, to the ruins of the royal apartments, at the pinnacle. Intricately carved panels stand tall beyond the huge circular bases of vanished pillars. Tea is also grown in the district headquarters at Dharamshala (and its adjoining McLeod Ganj). But that seems to me more like tea for tourists than for the tea industry: the gardens here are compact, selfie-friendly ones beside the highway.



DreamIAS



BUSINESS & ECONOMICS

FARM EXPORTS SURGE TO ALL-TIME-HIGH, BUT SO DO IMPORTS

India's agricultural exports crossed \$50 billion during the fiscal year ended March 31, 2022. While valued at \$50.3 billion, no less interesting is imports, too, scaling an all-time-high of \$32.4 billion.

The table below shows trends in the country's farm goods trade over the last 10 years. The previous record for exports was \$43.3 billion in 2013-14. That year, incidentally, also saw imports of only \$15.5 billion, resulting in an agricultural trade surplus of \$27.7 billion.

India's agricultural trade

The subsequent years witnessed falling exports alongside rising imports, leading to a narrowing of the surplus to \$8.1 billion in 2016-17. Exports took long to recover, to \$41.9 billion in 2020-21 and \$50.3 billion in 2021-22. But with imports shooting up, the farm trade surplus of \$17.8 billion for 2021-22 stood well below the levels in 2012-13 and 2013-14.

Global prices impact

The UN Food and Agriculture Organization's (FAO) Food Price Index – having a base value of 100 for the 2014-16 period – averaged 122.5 points in 2012-13 and 119.1 in 2013-14. Those were the years when India's farm exports reached \$42-43 billion. The collapse of the index to 90 points in 2015-16 was accompanied by a plunge in exports to below \$33 billion. The last two years, especially after October 2020, have witnessed a renewed boom in global agri-commodity prices, with the lifting of Covid-induced lockdowns and also the after-effects of the massive liquidity injections by central banks post the pandemic. The return of demand, reflected in the FAO index averaging 102.5 points in 2020-21 and 133 in 2021-22, has helped Indian agri exports rebound and go past \$50 billion.

In general, high international prices – like during late-2010 to 2014 and, more recently, from October 2020 – are favourable for exports of farm produce. There's an almost one-to-one relationship between the FAO index and India's agricultural exports. High global prices also tend to benefit farmers, both by pushing up their realizations closer to export parity levels and by making imports more expensive. However, 2021-22 turned out different, recording a surge in exports as well as imports – which wasn't the case in 2012-13 and 2013-14.

Trade composition

India's top agricultural export and import items having individual values exceeding \$1 billion in 2021-22, based on data from the Department of Commerce.

Leading the exports list is marine products, whose value has steadily risen, from just over \$5 billion in 2013-14 to \$5.9 billion in 2016-17, \$6.7 billion in 2019-20 and \$7.8 billion in 2021-22.

But the real increase has come from rice (specifically non-basmati), sugar and wheat, with their exports breaking all earlier records. 2021-22 was a remarkable year for rice and wheat.

Not only did the country ship out some 21 million tonnes (mt) of rice (17 mt non-basmati and 4 mt basmati) and 7.8 mt of wheat, offtake of the two cereals through the public distribution system, too, hit unprecedented levels of 55.1 mt and 50.6 mt, respectively.



The fact that India achieved its highest ever exports and also domestic sales of subsidized/free grain is evidence of the bumper harvests produced by its farmers.

On the other hand, many of the items that contributed to the previous export boom have displayed stagnation, even posting declines, in the recent period.

These include basmati rice (from \$4.9 billion in 2013-14 to \$3.5 billion in 2021-22), buffalo meat (\$4.8 billion in 2014-15 to \$3.3 billion), oil meals (\$3 billion in 2012-13 to \$1 billion), guar gum (\$3.9 billion in 2012-13 to \$447 million) and raw cotton (\$4.3 billion in 2011-12 to \$2.8 billion).

As far as imports go, the spike in 2021-22 has been largely courtesy of vegetable oils.

Vegetable oil imports were worth \$7.2 billion in 2013-14, increasing to \$10.9 billion in 2016-17 and \$11.1 billion in 2020-21, before soaring to \$19 billion in the fiscal just ended.

Pulses imports were at \$2.2 billion in 2021-22, but down from the \$4.2 billion high of 2016-17. Other big-ticket import items were fresh fruits (mainly almonds and apples), cashew (basically raw nuts for re-export after processing), spices and natural rubber.

In spices, India happens to be both a large importer (\$1.3 billion in 2021-22) and exporter (\$3.9 billion).

Exports mostly comprise chilli, mint products and cumin. On the other hand, there has been a rising trend in imports of pepper, cardamom and other traditional plantation spices from countries such as Vietnam, Sri Lanka and Indonesia.

Prospects

The Russian invasion of Ukraine has imparted further bullishness to agri-commodity markets, with the FAO food price index leaping to a fresh high of 159.3 points in March. That, going by past experience, should bode well for India's farm exports. There are expectations of the country's wheat and even maize exporters filling, at least partly, the void left by the two warring breadbasket nations.

Optimism on that front has somewhat ebbed, though, following the severe heat wave engulfing much of India from mid-March. Reports from the ground suggest significant yield losses, particularly for the wheat crop that was at the critical grain-filling stage when temperatures suddenly spiked. With government procurement set to more than halve from last year's 43.3 mt, the projections of wheat exports topping 10 mt may not easily materialize. The overall prospects for agri-exports hinge largely on the monsoon. Even with regard to 2021-22's star performers, rice and wheat, public granaries clearly aren't overflowing like during the pandemic period.

Meanwhile, there's little respite in sight on the biggest agri-import item: Edible oils. The war in Ukraine has dealt a body blow to the sunflower oil trade. That, coupled with drought in South America's soyabean-growing area and Indonesia's ban on palm oil exports, is likely to keep global prices elevated for some time. And it isn't edible oils alone. In 2021-22, the country even imported \$610 million worth of oil meals, a commodity that it used to heavily export till quite recently.

All in all, 2022-23 could be more challenging for Indian agricultural trade, notwithstanding high international prices that are normally favourable for exports while keeping imports in check. If the Reserve Bank of India's latest actions and hawkish commentary on food inflation are any indication, the policy push for exports may also not be as intense.



GINGER PRICE LEAVES FARMERS IN DISTRESS

Ginger farmers in Kerala and Karnataka usually prefer to harvest ginger rhizomes by the first week of April as they get the maximum price for their produce at that time. But more than 60% of the farmers, especially those cultivating ginger rhizomes in Karnataka, are yet to harvest their crop owing to the sharp fall in the price of the produce.

The farm gate price of the produce in Wayanad on Thursday was ₹1,000 to ₹1,100 a bag (60 kg) as against ₹2,300 a bag during the corresponding period last year. The price had gone up to ₹8,000 a bag a few years ago, which prompted many farmers to take up ginger cultivation.

Overproduction and diseases affecting the crop — especially bacterial wilt disease affecting matured rhizomes — are the major reasons for the low price of the produce, Arun Anto, a ginger trader, said. Moreover, there have been no demand for the produce from northern India after the outbreak of the pandemic, he added.

“The area under ginger cultivation had increased nearly threefold this season owing to the anticipation of farmers that price might increase this year. The expansion of ginger cultivation areas in other States like Maharashtra and Jharkhand also caused the oversupply of the produce,” he said.

STATES VS CENTRE: WHO INCREASED FUEL TAX RATE?

The story so far: Petrol is retailing at more than ₹100 a litre across India. The primary reason for the increase in pump prices over the past few years is the gradual rise in the Union government's excise duty component. The excise duty was cut by ₹5 per litre last November. While some States followed with a cut in value-added tax (VAT), many others did not. On Wednesday, Prime Minister Narendra Modi said fuel prices were too high in some non-BJP-ruled States as they did not “pass the benefits of the Centre's excise duty cut” to consumers. He said States such as Maharashtra, West Bengal, Telangana, Andhra Pradesh, Tamil Nadu, Kerala and Jharkhand did not reduce VAT last November while Karnataka and Gujarat did so.

By how much has the Central tax on fuel increased?

In October 2018, the Central excise duty on petrol amounted to ₹17.98 per litre. In February 2022, it increased to ₹27.9 per litre of petrol. In this period, the Centre's tax component expanded by about ₹10 per litre of petrol.

By how much has the tax levied by States risen?

As on February 2019, Kerala charged 30.08% as sales tax along with ₹1 a litre additional sales tax, plus 1% cess. Telangana charged 35.2%. West Bengal charged 25% or ₹13.12 per litre whichever was higher, with minor additional components. None of the three States had made any increases to the rates till April 2022. Tamil Nadu charged 34% VAT on petrol as on February 2019. In 2022, the tax structure has changed to 13% VAT plus ₹11.52 a litre.

In the period under review, Andhra Pradesh and Maharashtra (Mumbai)'s tax on petrol has risen by ₹3 a litre, whereas Karnataka's sales tax rate declined from 32% to 25.92%, and Gujarat's from 17% to 13.7%. In the non-BJP-ruled States, in this period, tax rates increased between nil and ₹3 per litre, whereas in the BJP-ruled States, tax rates declined.



How can the impact of States' taxes and the Centre's excise duties on petrol be measured?

One way to do this would be to compare the Centre's excise duty collections on crude oil and petroleum products, and the States' VAT collections on petroleum products, as a percentage of GDP. Between FY15 and FY21, the Centre's tax collections have increased from 0.79% of GDP to 1.88% of GDP. In the same period, States' tax collections have marginally declined from 1.1% of GDP to 1.02% of GDP. Another measure would be to compare the Centre's tax share in the retail price of petrol with State's tax share. For instance, in Delhi, the Centre's tax share currently forms 26.4% of the retail price. In May 2014 it was around 14%. The State's tax share currently forms 16.25% of the retail price, compared with 17% in May 2014. So, both in terms of percentage of GDP and retail prices, the States' tax collections have remained the same or even slightly declined, whereas the Centre's tax collections have climbed sharply.

THE STATUS OF GST COMPENSATION DUES

The story so far: At a meeting with Chief Ministers last week, Prime Minister Narendra Modi said that several non-BJP ruled States had failed to cut taxes on fuel products whose prices have surged sharply since March and urged them to do so in the interest of giving relief to the people facing high inflation. Most of the States he referred to — West Bengal, Tamil Nadu, Maharashtra, Kerala, Telangana, Jharkhand and Andhra Pradesh — countered the PM's pitch bluntly. West Bengal and Tamil Nadu said they had already reduced their VAT levies once. Maharashtra and Kerala pointed to States' resource constraints and pending dues from the Centre. The Mamata Banerjee administration said slashing State levies on petrol and diesel will be possible only if the Centre clears its outstanding dues of over ₹97,000 crore, which includes compensation for implementing the Goods and Services Tax (GST).

What is the status of the outstanding GST compensation due to the States?

The GST regime entailed doing away with multiple State and Central levies to create a simplified tax system for businesses. As this meant that States had to give up several taxation powers in the process, they were assured that revenue losses will be compensated for five years. The compensation was to be calculated by assuming a 14% year-on-year growth over revenues in 2015-16 from the State taxes subsumed in GST, and remitted from a compensation cess fund backed by cess levies on sin and luxury goods like pan masala, tobacco, coal and cars.

Hours after the meeting, to counter these States' arguments about pending dues, the Finance Ministry said that outstanding GST compensation dues to States for 2021-22 stood at ₹78,704 crore, equivalent to four months of such accruals. This means that dues have been remitted to States for the eight-month period of April 2021 till November 2021. The ministry, which had last released GST compensation of ₹18,252 crore to States and Union Territories during March, indicated its inability to pay the dues immediately owing to 'inadequate balance' in the compensation cess collections fund. "Normally, compensation for 10 months from April-January of any financial year is released during that year and the compensation for February-March is released only in the next financial year. The pending amount will also be released as and when amount from cess accrues in the compensation fund," the Ministry assured.

On top of the ₹78,704 crore due to States, ostensibly for the period of December 2021 to March 2022, compensation for the April to June period — the last quarter for which such dues will accrue — also need to be arranged. Chief economist of rating agency ICRA Aditi Nayar has estimated that



this could be another ₹60,000 crore, taking total dues that remain to be paid to States close to ₹1.4 lakh crore.

How much GST compensation has been paid so far to States and when will this cess levy end?

From July 2017 when the GST regime kicked off till now, about ₹7.35 lakh crore has been released as GST compensation to States. It had nearly doubled from ₹83,000 crore in 2018-19 to ₹1.65 lakh crore in 2019-20, before the pandemic hit the economy and revenue collections across the board. The Finance Ministry said that ₹2.78 lakh crore of compensation has been released to States for the year 2020-21 itself. Because GST as well as compensation cess inflows had dried up due to the COVID-19 lockdowns, as much as ₹1.1 lakh crore was financed through special borrowings from the market. In effect, the Centre borrowed these funds and lent them onwards to States as 'back-to-back' loans staggered through the year. Similarly, ₹1.59 lakh crore was raised in 2021-22 to pay States' compensation dues as per estimated shortfalls in the cess fund collections, and these funds were disbursed entirely by October by resorting to front-loading of the borrowings during the financial year. At the time, the Finance Ministry had expected the overall compensation payouts for the year to be ₹2.59 lakh crore, which it said would exceed the amount of compensation accruing to States in 2021-22, indicating it included pending compensation shortfalls for 2020-21.

The levy of the compensation cess, which was to cease on June 30 this year, has been extended till March 2025-26 with a view to use the receipts to repay the principal and interest on these special loans. Several States, worried about income sources falling off a cliff once the assured compensation ceases to accrue from July 1, have urged the Centre to extend the GST compensation period beyond the five-year promise. But these demands have been stymied so far, citing the legal provisions enabling GST, and are unlikely to gain traction.

Will the record GST collections in recent months help?

To the extent that States get a larger share of higher GST collections, of course. With April and May both clocking fresh highs in GST revenues of ₹1.42 lakh crore and over ₹1.67 lakh crore, the Centre and States' share, after making adjustments, was a robust ₹1.32 lakh crore and ₹1.36 lakh crore, respectively, over the two-month period. However, GST compensation cess collections are still not growing as rapidly as the overall kitty. Giving States some clarity on when outstanding GST compensation dues will be released, will help them plan their borrowings for the year, which will be particularly tricky from July. While the expected step-down in GST compensation flows from July 2023 may enlarge State borrowings this year, the timing of the release of the pending funds could impact their plans significantly, Ms. Nayar noted.

Moreover, with States expected to aggressively push capital spending this year, which is critical to spur growth, an early release of funds, be it the devolution of other tax collections, or GST compensation, would help them plan and execute public infrastructure projects quicker.

INEVITABLE INCREASE

The penny has dropped. After stubbornly holding off from acting to tame inflation, which has steadily eroded consumers' purchasing power and derailed broader economic momentum, the RBI's rate setting panel on Wednesday announced an 'off-cycle' increase in benchmark interest rates. The Monetary Policy Committee voted to raise the policy repo rate by 40 basis points to 4.4% with immediate effect. RBI Governor Shaktikanta Das rationalised that letting inflation



remain elevated at current levels for too long risked 'de-anchoring inflation expectations' and consequently hurting growth and financial stability. While Russia's invasion of Ukraine and the subsequent western sanctions on Moscow have roiled the outlook for prices on a range of commodities, including wheat, edible oil, crude oil and coal, Indian households' perception and expectations of inflation have been running well above the RBI's upper tolerance threshold of 6% for more than two years. That the RBI has been forced to act now, after insisting that price pressures were 'transitory', is a belated yet welcome acknowledgment that the economic costs of failing to anchor price stability can potentially be far more deleterious to growth than a relative decrease in the availability of low-cost credit. To cite Mr. Das: "Sustained high inflation... hurts savings, investment, competitiveness and output growth. It has pronounced adverse effects on the poorer segments ... by eroding their purchasing power."

In explaining its decision to raise borrowing costs for the first time in 45 months, the MPC has acknowledged that the overall outlook for inflation has darkened considerably since it met last month. Prices are on a tear globally and inflationary pressures are broadening worldwide. The IMF last month posited that the war in Ukraine was poised to not only slow global growth in 2022 but would also cause inflation to accelerate by 2.6 percentage points to 5.7% in advanced economies this year, and spur a more appreciable quickening of 2.8 percentage points in the case of emerging market and developing economies. With central banks in advanced economies led by the U.S. Federal Reserve pursuing a path of policy normalisation, the prospects of volatility in capital flows adding pressure on the exchange rate and consequently heightening the risks of imported inflation have also surely queered the pitch for the RBI. The fact that the novel coronavirus is still lurking and it could trigger a fresh wave of infections, as seen in China, adds considerably to the uncertainty. Monetary authorities have also rightly pointed to the impact that the increases in domestic pump prices of petroleum products have had on inflation. The onus is now squarely on the RBI and fiscal authorities to move in lockstep and take every possible measure including cutting fuel taxes to keep inflation from running away and landing the economy in stagflation.

LIC IPO TAKES OFF: DEMAND FROM ANCHOR INVESTORS IS VERY STRONG

The firm has reserved around 59.29 million shares for the anchor portion. Global funds and domestic mutual funds have put in bids for the anchor book. The Life Insurance Corporation (LIC) kicked off its mega IPO process Monday with the insurer's anchor book getting oversubscribed with bids of over Rs 7,000 crore. The LIC, which is planning to raise a total of Rs 21,000 crore through the IPO, has aimed to raise Rs 5,630 crore at the upper end of the price band from anchor investors. The firm has reserved around 59.29 million shares for the anchor portion. Global funds and domestic mutual funds have put in bids for the anchor book. An anchor investor in an IPO is a qualified institutional buyer (QIB) like a foreign portfolio investor or mutual fund or insurance company which invests before the IPO is made available to the public as per Sebi regulations. As initial investors, they make the IPO process more attractive for investors and instil confidence in them. Anchor investors also aid in price discovery of the IPO. Anchor investors who get guaranteed allotment a day before the IPO opens to the public are normally allocated 60 per cent of the QIB quota. Companies with a profitable track record can allocate 50 per cent of the IPO to QIBs. The demand in the anchor category is an indication of the success of the IPO, according to analysts. The LIC has priced the IPO in the range of Rs 902-949 per share. It has offered a discount of Rs 60 for policyholders and Rs 45 for retail investors and employees. The issue will open for retail investors on May 4 — May 3 is a holiday on account of Eid. Investors can bid for a minimum of 15 shares and thereafter in multiples of 15 shares. The size of the IPO was cut from Rs 65,000



crore to Rs 21,000 crore as the Russian invasion of Ukraine and sustained selling by foreign investors sent the stock markets into a tailspin. The Sebi recently said the existing lock-in of 30 days will continue for 50% of the portion allocated to anchor investors and for the remaining portion, a lock-in of 90 days from the date of allotment will be applicable for all issues opening on or after April 1. The change in the anchor lock-in rules is to avoid sell-off by anchor investors. For instance, shares of One97 Communications, the parent firm of Paytm, dipped sharply by 13 per cent on the day the mandatory lock-in period for anchor investors ended. Meanwhile, analysts expressed optimism about the LIC IPO. "From a valuation standpoint, at the upper band of the issue price, LIC is priced at 1.1x embedded value, which is at a significant discount to peers. Given the attractive valuation, the downside from here seems limited. Further, the fact that a discount has also been offered to retail investors is the cherry on the cake," said Yesha Shah, Head of Equity Research, Samco Securities.

HOW, AFTER BEING ON SALE FOR 6 YEARS, PAWAN HANS IS FINALLY ON ITS WAY TO A NEW OWNER

Pawan Hans is a 51:49 joint venture between the government and state-owned Oil & Natural Gas Corp Ltd.

After three unsuccessful attempts at disinvesting its stake in Pawan Hans Ltd, the government has approved the sale of the helicopter services provider along with management control to Star9 Mobility Pvt Ltd. There are 42 helicopters in Pawan Hans's fleet. Star9 Mobility's bid of Rs 211.14 crore for the government's 51% stake in the company was above the reserve price of Rs 199 crore.

What is Pawan Hans and why is it being sold?

Pawan Hans is a 51:49 joint venture between the government and state-owned Oil & Natural Gas Corp Ltd. The domestic helicopter operator, which mainly serves ONGC's offshore operations and operates a few UDAN flights to hilly and difficult terrains, has been making losses.

In 2016, the government decided to disinvest its stake in Pawan Hans. One of the options that were explored was to allow ONGC to acquire the government's stake in the company. However, this option did not find traction and, in 2018, ONGC too decided to offer its entire shareholding to the successful bidder identified in the government's strategic disinvestment transaction, on the same price and terms as the government.

This disinvestment is the second major sale from the government's aviation portfolio in the last 12 months — Air India went to the Tata Group in January this year.

What is Star9 Mobility?

The winning bidder for Pawan Hans — Star9 Mobility Pvt Ltd — is a three-way consortium between Big Charter Private Limited, Maharaja Aviation Private Limited, and Almas Global Opportunity Fund SPC. These three entities own 26%, 25%, and 49% stake in Star9 Mobility respectively.

The company was incorporated in October 2021 and, according to its Memorandum of Association, it intends to operate air support services to meet the requirements of the petroleum sector, including ONGC, in addition to operating tourist charters by helicopters, and "undertake any other operations that may be directed/requisitioned by the government".



What is the background of Star9 Mobility's owners?

Mumbai-based Big Charter Pvt Ltd runs the 'flybig' airline, which operates on UDAN routes, while Delhi-based Maharaja Aviation Pvt Ltd is a helicopter charter company. Almas Global Opportunity Fund is a Cayman Islands-based fund managed by Dubai-based Almas Capital.

Big Charter was founded by former pilot-turned-entrepreneur Sanjay Mandavia. Mandavia, along with a financial partner, had also bid for Jet Airways during the latter's bankruptcy proceedings but lost out to the Jalan-Kalrock consortium. He also owns a company that operates flight simulators for Indian and global airlines.

Maharaja Aviation is a licensed non-scheduled operator registered with the DGCA. According to information available on the DGCA website, the company has three Robinson helicopters in its fleet.

THE DEMAND FOR A REVENUE SHARE IN PRIVATISED AIRPORTS

The story so far: Earlier this month, the Tamil Nadu government issued a policy note which stated that the State government should claim compensation from the Centre in case of privatisation of an airport or transfer of its assets to a third party. Coming out in support of the DMK-led government, *Chhattisgarh and Jharkhand followed suit and claimed a stake in revenue share from the privatisation of airports.*

How many airports have been privatised?

Privatisation of airports in India first began in 2003 after the government approved a proposal to upgrade Mumbai and Delhi in a public-private partnership (PPP) model. The United Progressive Alliance (UPA) government also proposed the privatisation of a few airports, but couldn't implement it.

The proposal was then taken up by Prime Minister Narendra Modi. In 2019, Lucknow, Ahmedabad, Jaipur, Mangaluru, Thiruvananthapuram, and Guwahati airports were leased through the PPP model. In 2021, the Centre unveiled its plan to further monetise 25 airports managed by the Airports Authority of India (AAI) over five years under the National Monetisation Pipeline (NMP). These included four airports in Tamil Nadu – Chennai, Coimbatore, Madurai, Tiruchirappalli (Trichy).

What is Tamil Nadu proposing?

Under NMP, the Centre has earmarked four airports for privatisation in Tamil Nadu. As he cited a request to the State to acquire 64.57 acres of patta land for Chennai airport, Tamil Nadu Industries Minister Thangam Thennarasu presented a policy note in the Assembly on April 19.

The note states: "The AAI is actively pursuing the policy of privatisation of airports. Therefore, a decision has been taken that in the event the state government acquires and transfers the lands to the Airports Authority of India free of cost and the Airports Authority of India or the Government of India transfer the assets to a third party, the value realised/revenue accrued thereby, must be proportionately shared with the State government reflecting the huge investment in land being made by the State government."



The value of land, at an appropriate stage, should be converted into equity of the State government in the airport's special purpose vehicle or an appropriate revenue sharing arrangement should be arrived at before the airport is transferred to a private party, it adds.

The Tamil Nadu government said the policy decision was taken considering the State's investment in land assets before the transfer to AAI.

Why are Chhattisgarh and Jharkhand backing Tamil Nadu?

The non-BJP ruled States of Chhattisgarh and Jharkhand have also demanded a share of the revenue from privatised airports. Chhattisgarh minister T. S. Singh Deo said when the Centre and State come together for an earning project, the government's capital is present as a shareholder in terms of the land.

"So long as it is in the government sector, things are moving in a particular way, the Government of India would be making some revenue and there would be something spilling over to the State government and there would be a benefit to the public, so that is fine," the minister said, and added, "Now when you are selling it to a third entity which is a private party, then you are selling the assets of the company, which include apart from the infrastructure, the land also. So, the State government should be given the value of the land."

He noted that the sale will be by means of a valuation of the entire property which includes the sale price of the land.

"When you are in a joint venture then the investment which has been made, the Government of India would put in capital in terms of infrastructure, the State government puts up its capital in terms of its land. So, definitely in every such venture, the value of the land should be given to the State government if and when it is sold to a third party which is a private player," the Minister added.

Jharkhand Finance Minister Rameshwar Oraon also backed the proposal. "Land belongs to the State. When it is under the central government, we have no issues, we give land, water and other resources. But if the Centre is handing it over to private parties, revenue should be shared with the State government. A policy should be framed in this regard for all the States, not just Jharkhand," Mr. Oraon said.

Has the Centre agreed to the demand?

The Ministry of Civil Aviation is yet to officially comment on the matter. Officials were quoted as saying in a news agency report that a decision regarding the matter will be taken at the higher levels of the government.

AT THE END OF THE ROAD: THE STATUS OF THE FUTURE GROUP

The story so far: The Future Group, once considered a formidable force in modern retail, is staring at a bleak future as two of its major group companies, Future Retail Ltd. and Future Enterprises Ltd., are headed for insolvency proceedings under the IBC (Insolvency and Bankruptcy Code) following defaults on payments to creditors, according to people familiar with the development.



Why did Reliance Retail withdraw from the ₹24,713 crore deal that would have allowed it to take over Future's retail operations?

Secured creditors of the Future Group last week rejected a proposal for a large transaction between Future Group entities and the retail arm of Reliance Industries Ltd., citing the legal challenges to the proposed transaction and the lack of clarity over the outlook for the deal. There was no concrete proposal for the creditors to vote on, said one of the people who spoke on the condition of anonymity.

As per an announcement made in August 2020, entities of Reliance were to acquire retail and warehousing assets of the Future Group for ₹24,713 crore. As part of the deal, Reliance was to invest a further ₹2,800 crore in Future Enterprises for a 13% stake. With Reliance calling off the deal, which it said could not be implemented following the rejection of the proposal by Future's secured creditors, the Future Group now has few options left to seek a new lease of life.

The stage seems set for lenders to lay claim to the about ₹29,000 crore owed to them, through the insolvency process at the National Company Law Tribunal (NCLT).

Will all of Future's assets be available as inventory when the insolvency process kicks in?

While it will take about six to eight months to start insolvency proceedings by the creditors to recover their dues with or without 'haircuts', Future Group's major businesses — mainly food and grocery — will suffer the most as their outlets are headed for closure or takeover. As per the now-scraped deal, Reliance was to acquire assets of 19 Future Group firms.

Since February 2022, Reliance is believed to have taken over about 950 stores that were once operated by the Future group entities. Reports are that Reliance Retail has claimed that the takeover of these stores was independent of the ₹24,713-crore deal that has now fallen through.

The Reliance Industries Limited (RIL) is said to have invested close to ₹4,000 crore in running Future's stores and supplying products over the past few months after the retail major ran out of cash. These stores were operated as Future Group branded stores even after Reliance began funding their operational needs.

How did Reliance acquire control over so many of the Future Group's stores?

Amid the legal battle between Amazon.com Inc. and Future Group, landlords of a large number of stores had reportedly approached Reliance to get the lease agreements transferred to its (Reliance) name as Future was unable to pay the rents. The Reliance arm took over the stores starting February 25, 2022, according to people familiar with the matter. The Future Group itself is of the opinion that it was a "hostile takeover by Reliance to acquire the assets by not paying the agreed-upon amount".

What is likely to happen to the remaining stores of the Future Group?

As of now, the Future Group is left with about 550 stores, including small-format stores. Since the cash-strapped Future Group is unlikely to be able to pay lease rentals to landlords, most of the stores are either headed for closure or may be taken over through lease agreements with landlords by either Reliance or any other competitor. According to people familiar with the development, most retail stores of Future face closure within a month from now due to lack of financial resources and supplies.



In 2019, Future Group had an employee base of 75,000 people, which has now declined to less than 13,000. The high-decibel legal battle between Amazon and the Future Group has also impacted footfalls.

Where does Amazon figure in this imbroglio?

Future had offered Amazon a 49% stake in Future Coupons, a promoter group entity. Through this transaction in December 2019, Amazon also acquired an indirect stake in Future Retail.

As losses mounted, the Future Group entered into the ₹24,713-crore agreement with Reliance Retail in August 2020. In October 2020, Amazon filed a case opposing the deal contending that the proposed transaction with Reliance violated certain clauses in Amazon's contract with the Future Group and also went for international arbitration. Amazon's contention was that as per its agreement with Future Coupons, the Future Group necessarily required written approval from the U.S. online behemoth for any deal with Reliance. In the still ongoing legal tussle, the Future Group won a brief reprieve last December when the competition commission of India suspended the Amazon-Future agreement citing false representation of motive on the part of Amazon.

However, when Future moved the NCLT for approval to the proposal with Reliance, secured creditors rejected the transaction, even though shareholders and unsecured creditors had granted approval. Today, footfalls into the few remaining functioning stores of the Future Group have plummeted.

WHY ONDC PUSH COULD BOOST SMALL RETAILERS

The Department for Promotion of Industry and Internal Trade (DPIIT) went live with its Open Network for Digital Commerce (ONDC) project last week on a limited scale, enabling small merchants and mom-and-pop stores in some parts of the country to access processes and technologies that are typically deployed by large e-commerce platforms such as Amazon and Flipkart.

This is being seen as a step in the direction of making e-commerce processes open source, thus creating a platform that can be utilised by all online retailers and vendors.

What processes could be open-sourced with this project?

Several operational aspects including onboarding of sellers, vendor discovery, price discovery, and product cataloguing could be made open source on the lines of the Unified Payments Interface (UPI).

An executive of an e-commerce company has said that if mandated, this could create problems for larger e-commerce companies, which have proprietary processes and technology deployed for these segments of operations.

Where is ONDC live, and which companies are involved?

During its test run, the platform expects to onboard 150 sellers in places such as Delhi-NCR, Bengaluru, Coimbatore, Bhopal, and Shillong.

The platform basically works on two ends — the seller side and the buyer side. On the seller side, players such as enterprise resource planning company GoFrugal, and digital business platform Digiit are involved, while the buyer side interface is being built on Paytm.



How does this work?

The ONDC platform lies in the middle of the interfaces hosting the buyers and the sellers. So far, the buyer side interface is being hosted by Paytm, whereas the seller side interface is being hosted by other players like GoFrugal, etc.

When a buyer searches for an item on the Paytm app, for where ONDC has gone live, the app will connect to the ONDC platform, which will connect it to seller side interfaces that will list all the sellers that have listed that particular item. On the ONDC, there will be several other backend partners such as logistics service providers, enterprise resource planners, e-commerce store hosting service providers, etc.

Who is behind this project?

The ONDC project was commissioned by the DPIIT through the Quality Council of India (QCI). The building blocks of the project were designed by a nine-member advisory council that included Infosys Co-founder and Chairman Nandan Nilekani, National Health Authority CEO R S Sharma, QCI Chairman Adil Zainulbhai, National Payments Corporation of India CEO Dilip Asbe, and others.

What does the DPIIT expect from the project?

The DPIIT has said earlier that the ONDC “aims at promoting open networks developed on open-sourced methodology, using open specifications and open network protocols, independent on any specific platform. ONDC is expected to digitise the entire value chain, standardise operations, promote inclusion of suppliers, derive efficiency in logistics, and enhance value for consumers”.

Another key stated aspect of ONDC is that it is aimed at curbing “digital monopolies”. The creation of ONDC also means access to a large repository of buyer and seller data for those joining the open-source platform. Such data has so far been accumulated by large e-commerce marketplaces without them enabling access to this data for their individual sellers.

What does making something open-source mean?

Making a software or a process open-source means that the code or the steps of that process is made available freely for others to use, redistribute and modify.

For example, while the operating system of Apple’s iPhones — iOS — is closed source, meaning it cannot be legally modified or reverse engineered, Google’s Android operating system is open-source, and therefore it is possible by smartphone OEMs such as Samsung, Xiaomi, OnePlus, etc to modify it for their hardware.

If the ONDC is implemented and mandated, it would mean that all e-commerce companies will have to operate using the same processes. This could give a huge booster shot to smaller online retailers and new entrants.

KARNATAKA EXPLAINED: HOW SWIGGY’S TRIALS INTO DRONE-BASED DELIVERIES WILL WORK

Bengaluru-based logistics and delivery platform Swiggy said that it is commencing deployment of drones on a trial basis to make deliveries from its grocery service Instamart. The company has roped in four ‘drone-as-a-service’ operators for these trials, which will be conducted in two phases.



Where is Swiggy conducting drone trials? Who will conduct them?

In a blogpost, the company announced Friday that it will start the pilot for drone deliveries in Delhi-NCR and Bengaluru with immediate effect. This will be the first tranche of the pilot study that will be conducted by Garuda Aerospace Pvt Ltd in Bengaluru and Skyeair Mobility Pvt Ltd in Delhi-NCR. This will be followed by the second tranche of the trials that will be conducted by a consortium of ANRA and TechEagle, and Marut Dronetech Pvt Ltd. The second tranche will commence after “collating the learnings from the first tranche”.

Will drones carry Instamart deliveries to customers’ doorsteps?

Not yet. Swiggy is conducting the pilot to evaluate the feasibility of drones for the ‘middle mile’ use case. This means that the drones will be used to replenish stocks between seller-run dark stores, and from a store to a common customer point. A delivery partner will then pick up orders from the common point and deliver them to the customer’s doorstep.

What are the regulations for drone deliveries?

The most important factor of drone deliveries — beyond visual line of sight (BVLOS) operations — has not been allowed by the government yet. But last year, the Ministry of Civil Aviation granted conditional exemption to 20 entities, including Swiggy, the ANRA consortium and Marut Dronetech to conduct BVLOS experimental flights.

Are there other delivery companies involved in drone operations?

In India, several drone operators have partnered with state governments and other authorities to conduct trials of vaccines and healthcare supplies deliveries through drones. Logistics services company Delhivery in December announced acquisition of California-based Transition Robotics, which develops drone platforms. Globally, internet giant Alphabet’s drone delivery unit Wing recently delivered its first consignment in a major US metropolitan area by supplying boxes of medicines from Walgreens in Dallas, Texas.

A NEW PERSPECTIVE ON FERTILITY AND INCOME LEVELS

Economists who study the subject of human fertility have traditionally tried to explain two empirical observations in the real world. One of these empirical observations is the fact that in many countries, there is an inverse relationship between fertility and income levels. That is, as income levels have risen across the world, fertility levels have dropped significantly. In fact, in many countries in the western world, fertility is at below replacement levels at the moment and governments are trying to incentivize people to have more children. The second important empirical observation has been the inverse relationship between women’s participation in the labour force and their fertility levels. That is, as women’s participation in the labour force has risen over the years there has been a fall in fertility levels.

Economists have generally explained the inverse relationship between income and fertility as due to the decision among modern households to invest in the quality of children that they raise over the quantity of children that they make. In fact, some economists have argued that the decision of households to invest in child quality over child quantity was what helped many countries to build modern economies marked by high productivity. So, according to this view, when many households decided to have fewer kids and also sent these kids to schools to gain various skills over a number of years, for instance, this helped boost the productivity of the economy.



On the other hand, the inverse relationship between women's labour force participation rate and fertility has been explained in terms of the costs involved for women who are employed when it comes to having and raising children. As more women have entered the labour force over the decades, the opportunity cost of bearing and raising children has risen and led many to have fewer children. For example, a working woman has to forego earnings over a considerable period of time when she spends time out of the workforce to have and then raise children.

Women's labour and fertility levels

In "The Economics of Fertility: A New Era", researchers Matthias Doepke, Anne Hannusch, Fabian Kindermann, and Michele Tertilt argue that the two empirical observations discussed above that have guided economists till date no longer hold true in large parts of today's world. They argue that the inverse relationship between income levels and fertility has either flattened or reversed in many high-income countries. Even more surprisingly, there is now a positive rather than a negative or inverse relationship between women's labour force participation rate and fertility levels across many countries. That is, even as the participation of women in the labour force has risen there has also been a rise in fertility levels. The researchers argue that there may be various reasons for the drastic change in these empirical observations that have guided mainstream economists for many decades now.

Women today, for instance, get more support from their family, the state, and others when it comes to raising their children. Employment conditions may also be better suited to the needs of working mothers, thus encouraging more working women to have more children. Changes in social norms and support for working mothers may have also helped in the rise in fertility levels at a time when women's participation in the labour force has risen, the researchers say. All these factors together may have helped lower what is known as the "motherhood penalty" that women incur when they choose to work.

What this means for old theories?

What does this all mean for the old theories that economists used to explain empirical regularities observed in the past? It would be hard to completely dismiss them because the opportunity cost of making and raising children will always have an effect on the decisions made by households. Whether it is the 19th century or the 21st century, a woman who is thinking about having children will still factor in the opportunity cost of having a child in terms of lost potential earnings. Similarly, households' decisions on whether to invest in the quality of children they raise or rather increase or decrease the number of children they have will also have an effect on fertility regardless of the times that we live in. In other words, these are truths that always hold true even though empirical observations may lead us to believe that they don't matter anymore. It may just be that the effect of income levels and labor force participation may be blunted now by other factors such as social norms, family and state support, etc. Also, the influence that societal views on the idea of having children may have on households' decision to have children may be a topic of interest worth exploring by social scientists. After all, it can have a significant effect on the cost that households are generally willing to bear to have and raise children.



LIFE & SCIENCE

EXPLAINED: IN A SUNKEN WRECK OFF ALABAMA, A HISTORY OF THE TRANSATLANTIC SLAVE TRADE

In an image provided by the Alabama Historical Commission, a sonar image of the remains of the *Clotilda*, the last known US ship involved in the trans-Atlantic slave trade, which lies submerged near Mobile, Alabama. Researchers were due to begin on Monday a 10-day evaluation of the submerged wreck of the *Clotilda*, believed to be the most complete remains of a slave ship ever discovered. The *Clotilda*, the last known slave ship to arrive in the United States from Africa, was scuttled in the Gulf of Mexico close to the mouth of the Mobile river in Alabama after it had offloaded its cargo of 110 captive men, women, and children in July 1860, 53 years after Congress had outlawed international slave trade. The Alabama Historical Commission confirmed the identity of the wreck in May 2019, and in 2021, researchers announced that two-thirds of the original ship remained intact, including the under-deck hold where the slaves were kept during the six-week journey to America from Benin in West Africa.

The slave trade Between the 16th and 19th centuries, as many as 10-12 million Africans were transported to the Americas as part of the transatlantic slave trade. Hundreds of slaves were packed like animals into the hulls of the ships for brutal journeys that could last from weeks to even months. Usually, pairs of slaves were chained together at the ankle and placed in columns with ropes around their necks. Unhygienic conditions often led to the outbreak of diseases. Historians suggest that 10-15 per cent of slaves died during the journey. the *Clotilda* The slave ship was bankrolled by Timothy Meaher, a wealthy businessman and landowner from Mobile, Alabama, and captained by one William Foster. In early March 1860, Foster sailed for Whydah, a port in the kingdom of Dahomey (now Benin). After purchasing his cargo of slaves, Foster embarked on the return journey to the US in May.

The scuttling: Upon reaching the coast of Alabama, the crew and slaves were illegally removed, the ship was set on fire, and deliberately sunk. This was done because a federal law of 1807, backed by President Thomas Jefferson, had prohibited the import of new slaves into the US. This law, however, did not seek to curtail the country's internal trade in slaves. An AP report quoted historian Natalie S Robertson as saying Meaher commissioned the *Clotilda*'s journey so he could win a 1,000-dollar wager that he could continue importing slaves despite the 1807 law. The slave ship was bankrolled by Timothy Meaher, a wealthy businessman and landowner from Mobile, Alabama, and captained by one William Foster the slave since they had been brought illegally, the *Clotilda*'s cargo could not be classified as slaves. But they continued to be enslaved, and were distributed amongst the financial backers of the voyage. Meaher kept 32 of the slaves on his estate near Mobile; the others were sold to various slave owners across Alabama. In the decades before the American Civil War of 1861-65, the country had witnessed a cotton boom. The cultivation of cotton relied heavily on slave labour, and the demand for slaves continued to grow. With imports banned, prices of domestic slaves skyrocketed, and plantation owners demanded the resumption of the global slave trade, and provided incentive for men like Meaher.

In January 1865, when Abraham Lincoln was President, Congress passed the 13th Amendment abolishing slavery. The former West African slaves purchased some land from Meaher, on which they established Africatown outside Mobile. They were joined by other emancipated slaves from nearby areas, and together they established an autonomous community where they retained many of their indigenous customs and spoke in their own language. "It's, of course, a story of



resistance,” The New York Times quoted Sylviane A Diouf, author of *Dreams of Africa in Alabama: The Slave Ship Clotilda and the Story of the Last Africans Brought to America*, as saying. “They, from Day 1, acted as a community and as a family and they continued to be very active after they became free.”

NASA CLIMATE SCIENTIST WINS WORLD FOOD PRIZE

Cynthia Rosenzweig, an agronomist and climatologist, was awarded the \$2,50,000 prize in recognition of her innovative modelling of the impact of climate change on food production. She is a senior research scientist at the NASA Goddard Institute for Space Studies and serves as adjunct senior research scientist at the Columbia Climate School at Columbia University, both in New York.

Ms. Rosenzweig said she hopes the win will focus attention on the need to improve food and agricultural systems to lessen the effects of climate change.

“We basically cannot solve climate change unless we address the issues of the greenhouse gas emissions from the food system, and we cannot provide food security for all unless we work really hard to develop resilient systems,” she said.

The Des Moines-based World Food Prize Foundation award recognized Ms. Rosenzweig as the founder of the Agricultural Model Inter-comparison and Improvement Project. The organisation draws scientists from around the world and from many disciplines to advance methods for improving predictions of the future performance of agricultural and food systems as the global climate changes.

The foundation credited her work with directly helping decision-makers in more than 90 countries establish plans to prepare for climate change.

A BUYOUT THAT COULD MAKE A PUBLIC SQUARE PRIVATE

The recent announcement by Elon Musk, entrepreneur, investor, business magnate and the world’s richest man, in acquiring a stake in Twitter for \$46.5 billion, thereby turning a public limited company to a private one, has made headlines across the world. There are proponents of the deal who say that Mr. Musk will make Twitter more open, ensure freedom of speech and provide choice to users for subscription-based services. However, sceptics are of the opinion that Twitter will become more centralised in its operations and processes, thereby may make its content moderation more biased towards certain ideals that Mr. Musk possibly endorses.

Danger of exclusion

While the devil is in the details and how Mr. Musk plans to change the way in which content moderation is carried out in Twitter, what happens when a significant social media intermediary such as Twitter goes private?

First, economists define a public good as one that is non-excludable and a private good that is excludable. Twitter, having about ‘330 million monthly active users’ has been a forum of expression and the “go-to” place for many including politicians, celebrities, activists and scholars; it resembles a town hall, as Mr. Musk has himself been quoted as saying. Even after upping the word limit to 280 characters, Twitter continues to be the only microblogging platform for powerful short messaging with features such as pinning, Twitter moments, Twitter highlights, and Twitter lists to name a few. The Twitter Application Programming Interfaces (API) along with



powerful advanced search features enables users to analyse Tweets for trends in global politics, the media, news and so on.

However, when this public forum is taken to the private space, the danger lies in excludability — exclusion of certain sets of users based on some criterion including the fees that they pay for their services and their orientation towards certain ideologies, race or religion, sexual orientation and even demographics.

Issue of compliance

The second issue is the tussle between large and significant social media intermediaries and national governments. In one of his articles, Professor Edward Lee at the Illinois Tech Chicago-Kent College of Law, U.S., compared these large digital platforms to virtual governments that span the globe. He advocated mutual comity and respect between these virtual governments and national governments to disperse power in cyberpolitics.

It is also pointed out that for Internet platforms to be considered virtual governments, they should adhere to basic democratic accountability in formulating their policies and procedures, including being transparent and improving public participation and promoting non-partisan decision making. Twitter, which currently has more than 25 million users in India, has exhibited a lackadaisical approach in reacting to the requirements of the Government. It took a visit by the Delhi police to its office in India for Twitter to adhere to the Information Technology Rules 2021 in appointing compliance, nodal and grievance redress officers, way past the due date prescribed in the rules. What is the guarantee that Mr. Musk's Twitter will be any better in responding to such policies and regulations of national governments, outside the U.S. for promoting grievance redress and content moderation to name a few?

The right model

The third issue is the subscription-based model, as suggested by Mr. Musk. Professor Hal Varian at the University of California Berkeley, as Google's Chief Economist, invented and deployed a variation of the Generalized Second-Price auction in Google sponsored advertisements. This model, quite contrary to a subscription-based pricing model, subsidises search users for zero payment for services. While privacy advocates argue that personal information of users is being traded for advertisement revenue (that has reached more than \$200 billion annually for Google), the model exhibits a number of externalities that include opening up a doodle search window for all things in life, all at the click of a mouse. The model also provides an outlet for small and niche businesses to market and sell their products and services to the world at large. This model that minimises information asymmetry, even for those in unprivileged sections of society, has become possible only due to the free and open search, subsidised by advertisement revenue.

On the other hand, the subscription-based model promotes excludability; at the same time, it creates a chasm between those who have subscribed and those who have not, possibly creating tension across these groups. Though the possible privacy violations that occur in the advertisement model of Internet firms are harmful to users in certain settings, the alternative does not seem to be any better.

It is with this that we look at Mr. Musk's takeover of Twitter with scepticism. Open questions include whether any strong competitor to Twitter would emerge as an alternative for microblogging users; whether Twitter will indeed become more transparent, accountable and



responsible; and whether the platform that started with the tweet “just setting up my twttr.”, published on March 21, 2006, by its co-founder Jack Dorsey, will stand the test of time.

BOLTING SPIDERS

After males of the orb-weaving spider *Philoponella prominens* mate with a female, they quickly launch themselves away (Current Biology). Using a mechanism that had not been described before, the male spiders use a joint in their first pair of legs to immediately undertake a split-second catapult action, flinging themselves away from their partners at impressive speeds clocked at up to 88 centimetres per second. The reason the males catapult themselves is simple: to avoid being eaten by the female in an act of sexual cannibalism. The few males the researchers saw that did not catapult were promptly captured, killed, and consumed by their female partners. When the researchers prevented males from catapulting, they met the same fate, says a Cell Press release. Shichang Zhang of Hubei University in Wuhan and colleagues made this discovery while studying sexual selection in this spider, which lives in communal groups of up to 300 individuals in a web complex with many individual webs within it. Of 155 successful matings, they report that 152 ended with the male catapulting. All those catapulting males survived their sexual encounters. The three males that didn't catapult were killed. Another 30 prevented by the researchers from catapulting also got killed by the female. “Females may use this behaviour to judge the quality of a male during mating,” he adds. “If a male could not perform catapulting, then kill it, and if a male could perform it multiple times, then accept its sperm,” Zhang says.

CLIMATE CHANGE MAY INCREASE RISK OF NEW INFECTIONS

Climate change will result in thousands of new viruses spread among animal species by 2070 and that is likely to increase the risk of emerging infectious diseases jumping from animals to humans, according to a new study. This is especially true for Africa and Asia, continents that have been hotspots for deadly disease spread from humans to animals or vice versa over the last several decades, including the flu, HIV, ebola and COVID-19. Researchers, who published their findings on April 28 in the journal Nature, used a model to examine how over 3,000 mammal species might migrate and share viruses over the next 50 years if the world warms by 2°C, which recent research shows is possible. They found that cross-species virus spread will happen over 4,000 times among mammals alone. Birds and marine animals were not included in this study. Researchers said that not all viruses will spread to humans or become pandemic like the scale of the coronavirus but the number of cross-species viruses increases the risk of spread to humans. The study highlights two global crises, climate change and infectious disease spread. Previous research has looked at how deforestation, extinction and wildlife trade lead to animal-human disease spread, but there is less research about how climate change could influence this type of disease transmission., the researchers said at a media briefing on Wednesday. “We don't talk about climate a lot in the context of zoonosis — diseases that can spread from animals to people,” said study co-author Colin Carlson, an assistant professor of biology at Georgetown University.

Newly identified drug can be used as oral treatment for diabetes: IIT Mandi study

The findings of the research have been published in the Journal of Biological Chemistry. Researchers at IIT Mandi have identified a drug molecule that can be used to treat diabetes. The molecule, called PK2, is able to trigger the release of insulin by the pancreas, and can potentially be used as an orally administered medicine for diabetes, IIT Mandi said in a press release. The findings of the research have been published in the Journal of Biological Chemistry.



CURRENT TREATMENT: Diabetes is associated with insufficient insulin release by the beta cells of the pancreas in response to blood glucose levels. The release of insulin entails many intricate biochemical processes. One such process involves protein structures called GLP1R present in the cells. In one such process, a hormonal molecule, called GLP1, released after the ingestion of a meal, binds to proteins, called GLP1R. This triggers the release of insulin. Current drugs used for the treatment of diabetes, such as exenatide and liraglutide, mimic GLP1 and bind to GLP1R to trigger insulin release. However, these drugs are administered as injections, and they are costly and unstable after administration. “We seek to find simpler drugs that are stable, cheap, and effective against both Type 1 and Type 2 diabetes,” the release quoted study author Dr Prosenjit Mondal, Associate Professor, School of Basic Sciences, as saying.

COVID-19 COULD EVOLVE IN ANIMALS

The role of “animal reservoirs” in the spread of COVID-19 is still being studied but evidence of zoonosis, or the virus jumping from animals to humans, is growing and scientists are concerned that this new frontier could potentially spawn dangerous, and difficult to monitor mutants. Some experts supported the theory that the highly mutated Omicron variant, which caused a deluge of cases globally, including India, emerged from animals, potentially rodents, rather than an immune-compromised human. “As the virus multiplies in infected hosts, it can mutate slightly, and the worry is that over time, minor genomic tweaks in hundreds or thousands, if not millions, of animals, could eventually add up to changes that make the virus more contagious or deadlier in people, or able to evade treatments and vaccines,” US-based public health expert Amita Gupta told PTI. Although the number of people infected with coronavirus variants evolved in animals has not been quantified yet, the evidence of zoonosis is growing. Last week, the Centres for Disease Control and Prevention (CDC) confirmed that at least four people in Michigan, U.S., were infected with a version of the coronavirus observed mostly in minks during the first year of the pandemic. Flagging the concern, the World Health Organization (WHO) last month said the introduction of SARS-CoV-2 to wildlife could result in the establishment of animal reservoirs of the virus.

DreamIAS



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